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LEGEND AS TO THE ORIGIN OF THE DELAWARES.

HISTORIANS, as a general rule, are very distrustful as to legends. All nations have them, and dwell upon them with great pride, the legends generally pointing to a supernatural origin of the nation to which they refer. Greece had them in abundance and Rome, and our American Indian tribes seem each to have a legend of its own. The Shawnees had legends of the supernatural birth of their founder, one bringing him up out of the sea and another treating of him as an Indian phoenix, brought up out of the ground through the ashes of a camp-fire. The Iroquois, too, had a legend of their supernatural origin, as had the Cherokees and the southern tribes generally. So far as these legends treat of the supernatural, it is easy for the historian to throw them aside as unworthy of notice; but when they set forth a

tolerably well-connected story, it is easy to be deceived by their seeming truth. This has been the result in the case of the legend published by Heckewelder, as prevalent among the Delawares. It omits all claims to the supernatural, and sets out a story as to where the Delawares came from with so much *vraisemblance* that historians have accepted it as veritable history. Bancroft appears to have set the example for this; and it is not marvelous that others have followed in his track. Still, despite Heckewelder's childlike belief in it, and Bancroft's seeming acceptance of it, the story is nothing but a legend, with not a single collateral circumstance to back it up.

Heckewelder, as is well known, was a Moravian missionary among the Delawares at Bethlehem, on the Lehigh. He had

studied their language diligently, mixed freely with them, and heard all their legendary stories. Ordinarily, he is a good authority in the etymology of Delaware words; but, being a credulous and unsuspicious man, is frequently weak and untrustworthy. The childlike blandness with which he narrates this legend, and the easy credulity that leads him to believe in it, are proofs of his unsuspicious character. To us a legend *is* a legend, and suspicious because it is a legend; to him, coming from his pet Delawares, it was veritable history.

As Heckewelder's statement of it is short, I append it herewith. Many, perhaps most, of your readers may have seen it before; but it will well repay a perusal. It is impossible to comment upon it freely without having it before the eye:

TRADITION OF THE LENNI-LENAPE.

"The Lenni-Lenape (according to the traditions handed down to them by their ancestors) resided many hundreds of years ago in a very distant country in the western part of the American continent. For some reason, which I do not find accounted for, they determined on migrating to the eastward, and accordingly set out together in a body. After a very long journey and many nights' encampments* by the way, they at length arrived on the *Namaesi-sipu*,† where they fell in with the *Mengwe*,‡ who had likewise emigrated from a distant country, and had

struck upon this river somewhat higher up. Their object was the same with that of the Delawares; they were proceeding on to the eastward, until they should find a country that would please them. The spies, which the Lenape had sent forward for the purpose of reconnoitering, had long before their arrival discovered that the country east of the Mississippi was inhabited by a very powerful nation, who had many large towns built on the great rivers flowing through their land. Those people (as I was told) called themselves *Talligewi*. Colonel John Gibson, however, a gentleman who has a thorough knowledge of the Indians and speaks several of their languages, is of opinion that they were not called *Talligewi*, but *Alligewi*, and it would seem that he is right, from the traces of their name which still remain in the country—the Allegheny river and mountains have indubitably been named after them. The Delawares still call the former *Alligewi-sipu*, the river of the Alligewi. We have adopted, I know not for what reason, its Iroquois name, Ohio, which the French had literally translated into *La Belle Riviere*, the Beautiful River. A branch of it, however, still retains the ancient name, Allegheny.

"Many wonderful things are told of this famous people. They are said to have been remarkably tall and stout, and there is a tradition that there were giants among them, people of a much larger size than the tallest of the Lenape. It is related that they had built to themselves regular fortifications or entrenchments, from which they could sally out, but were generally repulsed. I have seen many of the fortifications said to have been built by

* "Nights' encampment" is a halt of one year at a place.

† The Mississippi, or River of Fish; *namaes*, fish; *sipu*, river.

‡ The Iroquois or Five Nations.

them, two of which, in particular, were remarkable. One of them was near the mouth of the River Huron, which empties itself into the Lake St. Clair, on the north side of that lake, at the distance of about twenty-nine miles northeast of Detroit. This spot of ground was, in the year 1786, owned and occupied by a Mr. Tucker. The other works, properly entrenchments, being walls or banks of earth regularly thrown up, with a deep ditch on the outside, were on the Huron river, east of the Sandusky, about six or eight miles from Lake Erie. Outside of the gateways of each of these two entrenchments, which lay within a mile of each other, were a number of large, flat mounds, in which, the Indian pilot said, were hundreds of the slain Talligewi, whom I shall hereafter, with Colonel Gibson, call *Alligewi*. Of these entrenchments, Mr. Abraham Steiner, who was with me at the time when I saw them, gave a very accurate description, which was published at Philadelphia in 1789 or 1790, in some periodical work, the name of which I cannot at present remember.

"When the Lenape arrived on the banks of the Mississippi, they sent a message to the Alligewi to request permission to settle themselves in their neighborhood. This was refused them, but they obtained leave to pass through the country, and seek a settlement further to the eastward. They accordingly began to cross the *Namaesissipuu*, when the Alligewi, seeing that their numbers were so very great, and, in fact, they consisted of many thousands, made a furious attack on those who had crossed, threatening them all with destruction if they dared to persist in coming over to

their side of the river. Fired at the treachery of these people and the great loss of men they had sustained, and, besides, not being prepared for a conflict, the Lenape consulted on what was to be done; whether to retreat in the best manner they could, or try their strength, and let the enemy see that they were not cowards, but men, and too high-minded to suffer themselves to be driven off before they had made a trial of their strength and were convinced that the enemy was too powerful for them. The Mengwe, who had hitherto been satisfied with being spectators from a distance, offered to join them on condition that, after conquering the country, they should be entitled to share it with them; their proposal was accepted, and the resolution was taken by the two nations to conquer or die.

"Having thus united their forces, the Lenape and Mengwe declared war against the Alligewi, and great battles were fought, in which many warriors fell on both sides. The enemy fortified their large towns and erected fortifications, especially on large rivers and near lakes, where they were successively attacked and sometimes stormed by the allies. An engagement took place in which hundreds fell, who were afterwards buried in holes or laid together in heaps and covered with earth. No quarters were given; so that the Alligewi, at last finding that their destruction was inevitable if they persisted in their obstinacy, abandoned the country to the conquerors and fled down the Mississippi river, from which they never returned. The war which was carried on with this nation lasted many years, during which the Lenape lost a great number of their

warriors, while the Mengwe would always hang back in the rear, leaving them to face the enemy. In the end the conquerors divided the country between themselves; the Mengwe made choice of the lands in the vicinity of the great lakes and their tributary streams, and the Lenape took possession of the country to the south. For a long period of time, *some say many hundred years*, the two nations resided peaceably in this country and increased very fast; some of the most enterprising huntsmen and warriors crossed the great swamps,* and, falling on streams running to the eastward, followed them down to the Great Bay river,† thence into the bay itself, which we call Chesapeake. As they pursued their travels partly by land and partly by water, sometimes near and at other times on the Great Saltwater lake, as they call the sea, they discovered the great river which we call the Delaware; and thence exploring, still eastward, the Scheyichbi country, now named New Jersey, they arrived at another great stream, that which we call the Hudson or North river. Satisfied with what they had seen, they, or some of them, after a long absence, returned to their nation and reported the discoveries they had made; they described the country they had discovered as abounding in game and various kinds of fruits, and the rivers and bays with fish, tortoises, etc., together with abundance of water-fowl, and no enemy to be dreaded. They considered the

event as a fortunate one for them, and, concluding this to be the country destined for them by the Great Spirit, they began to emigrate thither, as yet but in small bodies, so as not to be straitened for want of provisions by the way, some even lying by for a whole year. At last they settled on the four great rivers (which we call Delaware, Hudson, Susquehanna and Potomac), making the Delaware, to which they gave the name of 'Lenapewihittuck'‡ (the river or stream of the Lenape), the centre of their possessions.

"They say, however, that the whole of their nation did not reach this country; that many remained behind in order to aid and assist that great body of their people which had not crossed the Namaesi-sipu, but had retreated into the interior of the country on the other side, on being informed of the reception which those who had crossed had met with, and probably thinking they had all been killed by the enemy.

"Their nation finally became divided into three separate bodies: the large body, which they suppose to have been one-half of the whole, was settled on the Atlantic, and the other half was again divided into two parts, one of which, the strongest, as they suppose, remained beyond the Mississippi, and the remainder where they left them, on this side of the river.

"Those of the Delawares who fixed their abode on the shores of the Atlantic divided themselves into three tribes. Two of them, distinguished by the names of the Turtle and the Turkey, the former

* The Glades; that is to say that they crossed the mountains.

† Meaning the River Susquehanna, which they call the "Great Bay River," from where the west branch falls into the main stream.

‡ The word "Hittuck," in the language of the Delawares, means a rapid stream. Sipo or sipu is the proper name for a river.

calling themselves Unamis and the other Unalachtgo, chose those grounds to settle on which lay nearest to the sea, between the coast and the high mountains. As they multiplied, their settlements extended from the Mohicannittuck (River of the Mohicans, which we call the North or Hudson river) to beyond the Potomac. Many families, with their connections, choosing to live by themselves, were scattered not only on the larger but also on the small streams throughout the country, having towns and villages where they lived together in separate bodies, in each of which a chief resided. Those chiefs, however, were subordinate (by their own free-will—the only kind of subordination which the Indians know) to the head chiefs or great council of the nation, whom they officially informed of all events, or occurrences affecting the general interest, which came to their knowledge. The third tribe, the Wolf, commonly called the Minsi, which we have corrupted into Monseys, had chosen to live back of the two other tribes, and formed a kind of bulwark for their protection, watching the motions of the Mengwe, and being at hand to afford their aid in case of a rupture with them. The Minsi were considered the most warlike and active branch of the Lenape. They extended their settlements from the Minisink, a place named after them, where they had their council-seat and fire, quite up to the Hudson on the east, and to the west or southwest far beyond the Susquehanna; their northern boundaries were supposed originally to be the heads of the great rivers Susquehanna and Delaware, and their southern boundaries that ridge of hills known in New Jersey by

the name of Mushanecton and in Pennsylvania by those of the Lehigh, Coghnewago, etc. Within this boundary were their principal settlements, and even as late as the year 1742, they had a town with a large peach orchard, on the tract of land where Nazareth, in Pennsylvania, has since been built; another on Lehigh (the west branch of the Delaware), and others beyond the Blue Ridge, besides small family settlements here and there scattered.

“From the above three tribes the Unamis, the Unalachtgo and the Minsi, comprising together the body of the people we call Delawares, had, in the course of time, sprung many others, who, having for their own convenience chosen distant spots to settle on and increasing in numbers, gave themselves names or received them from others. Those names, generally given after some simple, natural object, or after something striking or extraordinary, they continued to bear even after they ceased to be applicable, when they removed to other places, where the object after which they were named was not to be found; thus they formed separate and distinct tribes, yet did not deny their origin, but retain their affection for their parent tribe, of which they were even proud to be called the grandchildren.”

The reader will notice the smug sense of complacency which pervades this narrative. The atmosphere of the “Big Injun! Me!” surrounds it. The idea that runs through it is, see what a big, magnanimous, brave, great people the Lenape were, and how poorly the Iroquois compare with them! The latter stood

back when the Lenape bore the first onset of the Allegewi, looking on complacently, and waiting for their chance to come in with the fullest benefit to themselves; and after both had got safely across the river, the Iroquois left them to bear the brunt of the fight with the enemy, lagging in the rear out of harm's way. The Iroquois' legend was that, at some indefinite time, the Delawares had made peace with an enemy, agreeing never to take up arms again; hence they were branded as "women," and Indians who had no rights any other Indian was bound to respect. This Delaware legend was plainly intended to offset the offensive Iroquois one, and to show that the Lenape were always brave *men* and willing to do more than their share of the fighting. This plain purpose of the Delaware legend has, to readers of English, fallen out of sight, to base on the legend theories and speculations about the Allegewi.

Let us examine it and see what claim it has to be regarded as historical, so far as it relates to this otherwise entirely mythical Indian tribe of prehistoric times. For, bear it in mind, the legend applies to times before the discovery of America. It is more than a hundred years since the innocent and verdant Heckewelder gathered up the elements of his story, in chats at evening in the cabins and tents of the aged Indians of his day. The time is vaguely placed as "many hundred years ago," and "a long period of time," some say many hundred years." If, to the old men of 1786 it was "many hundreds of years" before their recollections, this event, if it ever happened at all, must have happened not later than 1400. The

discoverers of North America found the same tribes of Indians on the coast as were there in Heckewelder's time. The migration to the Atlantic coast from beyond the Mississippi must, therefore, have happened some time before the close of the fourteenth century. It happened, then, in prehistoric times, prehistoric so far as the Indians were concerned. The Indians kept no records, and the only corroboration the story could have would be in the survival of a somewhat similar legend among other Indian tribes. The legend mentions the Iroquois as another tribe, moved by the same impulse as the Lenape, which met them on the banks of the Mississippi, and joined with them in fighting their way across, and in dividing the land between them when they had driven out the Allegewi. If there was any truth in the legend, the memory of the story would be as likely to survive among the Iroquois as among the Delawares—would be *more* likely to do so, in fact, for the Iroquois were the more intelligent of the two tribes, the more warlike and the more likely to retain the tradition of such an event, and to hand it down from one generation to another. Yet we seek in vain for any such legend among the Iroquois traditions. They claimed to be *Ongwe-Hongwe*—men above men—a higher class of men; and so great a feather in their cap as would have been the defeat and extinction of the great tribe of the Allegewi would most certainly have been sported if there had been any tradition of this kind to warrant it. The Iroquois were always "Big Injuns" in their own estimation, but their vanity never drove them to imagine anything that bears the

remotest likeness to this Delaware legend. Nor has any such tradition a place among the other Lenape tribes. The Chippewas, who might reasonably claim to be the remnants of the tribe left on this side the Mississippi when the final break-up took place, have no such tradition. The Mohicans of New York were alike destitute of such a story, while the Narragansetts and Abenakis of the east, and the Pamunkeys of the south, had no such exploit to boast of in narrating their nurtured traditions. There is no account or hint of any such story in the history of any tribe of Indians, east, west, north or south; and as the two tribes who crossed the Mississippi, in this legend, peopled the whole country east of the big river, it seems impossible that the tradition of such an event should have died out of every memory except in those of a few old blowhards under missionary tutelage at Bethlehem. There is, in fact, no corroboration whatever for the story covered by this tradition. It rests solely upon the unsupported authority of a few chattering old Delawares.

It is Gallatin, I think, who suggests that the Delawares, from whom this legend was drawn, must have framed it on the pattern of the story of the escape of the Israelites from Egypt. They must have gathered their recollections together of the Israelites' escape, from the teachings of the missionaries, and adapted them to a supposed similar escape of their own tribe from beyond the Mississippi. An Indian's recollections of a Biblical event, narrated by the missionaries, would naturally, in a retrospect, fuse with ideas of the history of his own tribe and event-

ually take the shape of a tradition handed down from generation to generation.

The first point in this tradition that excites attention and challenges investigation, is that it reverses the well-known rule regarding the migration of tribes and people. The tradition makes the migration take place from west to east; the rule is, that it is uniformly from east to west. All the great migrations of history have been from the east to the west. What was there in the history of these two tribes that made it necessary to reverse the train and run it on the back track? The west in those days, so far as is known, was as far in advance of the east as it was in Heckewelder's time, as an Indian paradise. What was it that drove them out to find poorer fields on the more barren Atlantic coast? The very fact that this legend rests on such a reversal of a natural rule casts suspicion on it. The story is built on an unnatural and improbable foundation.

The next point noticeable is that the Iroquois are constantly spoken of only as "Mengwe," and never as Iroquois. Mengwe, corrupted into Mingo, is the Delaware equivalent for "enemy," just as Nadewassioux was in Chippewa, the Sioux getting their name from the last syllable of this Chippewa word. But why, in speaking of events many hundred years old, speak of the Iroquois as Mengwe, enemies, when they were *not* enemies, but friends and friendly allies? It was centuries after these supposed events before they became Mengwe, and the name was so inapplicable that it is marvelous Heckewelder did not notice it. No truthful narrator, mindful of the har-

mony of the details of his narrative, would speak of his friends and allies as his enemies. The constant recurrence of Mengwe brands the whole story as of modern concoction.

The etymology of Mississippi given in this legend *may* be Heckewelder's, and is not farther wrong than was his subsequent etymology of Ohio, but I incline to think he does not offer it as his own, and merely includes it as a part of the legend as he got it from his Delaware interlocutors. If so, the narrators were as far wrong in their etymology as in their history. Namaes-sipu, "Fish river," would be a name as applicable to any other river as to the Mississippi. All rivers, "many hundred years ago," were Fish rivers, whatever they may be now, and we have too much regard for the intelligence of all the parties, to suppose that either the Iroquois or the Lenape or the Allegewi would be guilty of applying so generic a name to a specific river. The Allegewi and the Iroquois could not have applied it, for the name is exclusively Delaware in its origin, and the Lenape were probably as innocent of inventing it as they were of crossing the river it is applied to. The accent in Namaes is upon the last syllable; so that the name of the river would sound as Na-mass-sipu, instead of Miss-issipi. It is a wonder that Heckewelder did not cite the pronunciation current among the corn-crackers of Mass-issipi, as a remnant of the original name given in the legend.

The Delaware narrators of this story plainly gave Heckewelder the name *Tallegewi*, as applicable to the tribe that disputed the passage of the Mississippi;

but although asking implicit faith in their narrative, he coolly throws them aside, and calls Colonel John Gibson in to supersede them, upon whose authority he gives *Allegewi* as the proper name. But what did Colonel John Gibson know about it? He was a good Indian scholar, but he knew nothing whatever about this name, and his version of the name is a mere supposition, with nothing to rest on. If the legend has any authority at all, it certainly ought to be as conclusive on the name as on the event. The name *Tallegewi* has an alleged tradition to rest on; while *Allegewi* rests solely on an unfounded supposition of an outsider. Heckewelder adopts it because it falls in with his theory as to the origin of the name *Allegheny*. "The Delawares," he makes his narrators say, "still call the former (the Allegheny) *Allegewi-sipu*, the River of the Allegewi," when it is the Tallegewis they are talking about. He admits, however, that it "still retains the *ancient* name, Allegheny." Now, Heckewelder must have known that "Allegheny" is purely of Delaware origin, and that there is no trace, anywhere, of its ever having been known or spoken of among the Delawares as "Allegewi-sipu," except in this solitary instance.

His admission here, that "we have adopted the Iroquois name, Ohio," is in singular contrast with his labored effort, not long after, to prove that "Ohio" was not Iroquois at all, but of Unami origin.

In some other of Heckewelder's writings he hints that the *Tallegewi*, driven south by their conquerors, were the Cherokees, who call themselves *Tsallakee*. He thought that *Tsallakee* was the legitimate descendant of *Tallegewi*; but what, then,

becomes of Gibson's Allegewi, and of Allegewi-sipu? It is hard to build two contradictory theories upon one name.

There is no evidence, outside of this unsupported tradition, that any such people as the *Tallegewi* or *Allegewi* ever had an existence here or anywhere else. According to the tradition, their home was upon the Mississippi, and not upon the Allegheny; and the name of the latter, being purely of Delaware origin, cannot be cited as evidence that they left their name upon a river nearly a thousand miles east of them. The whole legend appears to

have been manufactured to pour into a willing and credulous ear, its main purpose having been to glorify the Lenape at the expense of the Iroquois. We do not say that there never was such a tribe, for that no one knows, but that there is no evidence of their having ever existed. A legend, corroborated by other testimony, may be considered as evidence; but an unsupported legend, without a particle of corroboration, is a legend, or myth, and nothing more. History must be built upon something more solid than this.

RUSSELL ERRETT.

THE PROHIBITION PARTY: ITS ORIGIN, PURPOSE AND GROWTH.

I.

IN order to write a history of the Prohibition party that shall do justice to its founders by placing them before the public in a light that will make their motive clearly understood, it is necessary to go back some ways in the history of temperance agitation, in this country. We promise to make this introductory part as brief as possible, and at the same time not leave the reader without a fairly good idea of the movements of men and parties which induced a comparatively few men to break the bonds of party heretofore binding them and strike out into what they knew would be a long and laborious undertaking.

In studying this question we must keep in view the difference between the cause of temperance and the prohibition movement. The first *may* lead up to the

other; the second will, when successfully administered, enforce the other. The first is a principle of personal government, each person acting for himself or herself under religious, moral, physical or intellectual restraint; the second is the political or governmental action of a body of citizens combined for what they believe to be the best good of the community. The first is the government of the individual by himself; the second is the governing of a business by organized government, a police regulation in furtherance of what the people no doubt believe to be good government.

It is a somewhat noticeable fact that when the people first begin to move in the matter of antagonizing the liquor traffic to lessen its evils or to save the people from its ravages, they always first

appeal to the government. It seems perfectly natural that the government should step in and defend the people against this great devouring evil. But we also see that after only one or two steps in this direction are taken, there is at once an influence brought to bear on government (whether it be that of monarchies or republics) not to do anything to injure the traffic. The first refuge of the traffic when assailed is license, usually proposed and formulated into law by those who believe or pretend to believe that licensing the business of selling liquor is a step toward its ultimate prohibition, by some sort of evolution never yet explained or demonstrated.

Very early in the history of this country the evils of intemperance were remarked upon. During the War of the Revolution these evils were regarded by the more intelligent and earnest patriots as an enemy that decimated the ranks more than the armies in their front, and were more productive of disorder and discontent than all other causes combined. The demoralization from this cause immediately after the war was very great, and became so alarming that congress, on February 27, 1777, passed the following resolution:

"Resolved, That it be recommended to the several legislatures in the United States immediately to pass laws the most effective for putting an immediate stop to the pernicious practice of distilling grain, by which the most extensive evils are likely to be derived if not quickly prevented."

This, we are sorry to say, is the last utterance of the American congress that breathes anything like the true principle on which government should proceed in re-

lation to this subject. Probably someone suggested to the wise legislators that "you will injure our party, you had better go slowly with that matter," and that suggestion has been kept ever before their eyes and they have forever gone slowly. And what movement they have shown has been slowly backward.

About this time Dr. Benjamin Rush—one of the signers of the Declaration of Independence—a man whose whole life and great talent were devoted to the highest services of his country, delivered numerous addresses and wrote numerous articles, in which he set forth clearly the necessity of the hour and the duty of government in relation to the drink habit and traffic. As has been said by a late writer, "What a babbler he must have seemed," surrounded by a nation of drunkards; by ministers of the gospel who drank constantly with their people and often officiated in the most sacred capacity while under the influence of intoxicants; living among people who had been educated from their youth that no occasion of festivity or mourning was complete without the flowing bowl."

His wise words seem to shine out like one bright star in an otherwise black sky.

The next great light thrown upon this subject was from Dr. Lyman Beecher. One of his biographers says of him that about 1814 (while located at Litchfield, Connecticut), "The vice of intemperance had become a common one in New England, even the formal meetings of the clergy being not infrequently accompanied with gross excesses. Mr. Beecher resolved to take a stand against this vice, and preached and published his six famous

sermons on temperance, which contained passages the eloquence of which is hardly exceeded by anything in the English language." If not another word of this great man's preaching or writing had been preserved, these sermons alone would stamp him as a man of great and comprehensive mind—one having a deep insight into the passions of the human heart, and one who could not only see the inevitable results of the indulgence of those passions, but could look ahead into the future and picture clearly the great work that lay before the American people in their effort to rid themselves of this gigantic evil. In one of these lectures he says, "In our views and in our practice as a Nation there is something fundamentally wrong, and the remedy, like the evil, must be found in the correct application of general principles. It must be a universal and National remedy. What then is this universal, natural and National remedy for intemperance? It is the banishment of ardent spirits from the list of lawful articles of commerce."

From that time on, other men began thinking and agitating in this line. First the effort was against the excessive use of intoxicating beverages; and, in order to do this, various societies were organized, such as the Sons of Temperance, Good Templars and others. Among these agitators were always to be found men who looked further into this subject than to the mere passive means, to those of protection to the individual and society, and from time to time spoke out in plain words their convictions. In 1823 Henry Ware, in an address on the "Criminality of Intemperance," said: "*There is no man, or*

body of men, who can strike at the root of the evil but by the legislature of the Nation."

Dr. Justin Edwards, in his sixth report of the American Temperance society, on the "Immorality of License Laws," said, in 1833: "The point to be decided—to be decided by legislatures of these United States—to be decided for all coming posterity, for the world and for eternity—is, Shall the sale of ardent spirits, as a drink, be treated in legislation as a virtue or a vice? Shall it be licensed, sanctioned by law and perpetuated, to roll its all-pervading curses onward interminably; or shall it be treated, as in truth it is, a sin?" In 1837 the board of managers of the Pennsylvania State Temperance society presented a memorial to the convention for revising the constitution of the state, which strongly urged the convention not to place in the constitution the power to license the liquor traffic. In 1838 Edward C. Delevan, who had been one of the most earnest and liberal friends of temperance, wrote to Dr. John Marsh: "Throw out your light; teach the people to feel that they are the law-makers; show all friends of temperance the folly of sending drinking men to our legislative halls and then sending petitions to save the community from the ruinous effects of their own practice." The first effort at legislation in the direction of total prohibition was in Maine, in 1837. This action was followed by other states, but nothing more dangerous to the traffic was enacted than some mild forms of local option laws until, in 1851, Neal Dow drafted the Maine law. It was enacted by the legislature and was hailed everywhere by the friends of temperance as being perfect

in its principle and adaptation. The Maine law became the model for other state laws until, in 1855, fourteen different states had adopted laws of the same kind or very similar. To show the enactment of these laws in the several states, and by what political party enacted, we give the following table :

	State.	Date.	Governor.	Politics.	Politics of Legislature.
1	Maine	June 2, 1851.....	Hubbard.....	Democratic.....	Democratic.
2	Minnesota.....	March, 1852.....	Ramsey.....	Democratic.....	Democratic.
3	Rhode Island.....	March 7, 1852.....	Allen.....	Democratic.....	Democratic.
4	Massachusetts.....	May 27, 1852.....	Winthrop.....	Whig.....	Dem. & Free-Soil.
5	Vermont.....	November 23, 1852.	Fairbanks.....	Whig.....	Whig.
6	Michigan.....	February 12, 1853.	McClelland.....	Democratic.....	Democratic.
7	Connecticut.....	June 16, 1854.....	Dutton.....	Whig.....	D. & Am. & Neb.
8	Indiana.....	February 8, 1855.....	Wright.....	Dem. & Anti-Neb.	D. & Am. & Neb.
9	Delaware.....	February 27, 1855.....	Causey.....	American.....	American.
10	Iowa.....	February, 1855.....	Grimes.....	Whig & Rep.....	Whig & Rep.
11	Nebraska.....	April, 1855.....	Izard.....	Democratic.....	Democratic.
12	New York.....	April 19, 1855.....	Clark.....	Fusion.....	Whig.
13	New Hampshire.....	July 14, 1855.....	Metcalf.....	American.....	American.
14	Illinois.....	February 16, 1855.....		American.....	W. & Anti-Neb.

During the time that this legislation was being enacted the agitation of the slavery question was becoming more and more violent, and the attention of everyone was turned to that one question ; and it must be remembered also, that at that time the Republican party was making loud protestations of being a temperance party, and indeed in some states they were making these professions good by enforcing temperance laws already on the statute book and strengthening them by further legislation. This was especially true in the states of Maine and Vermont, and for a time in Massachusetts. At the call of the country for its loyal sons to come to the rescue of the Union, the friends of temperance dropped for a time the agitation of their favorite question. Not so the liquor interest. In 1862, when the government was writhing, as it were, in the grasp of the great Rebellion, the Beer Brewers' congress was organized, and they have continued to hold their annual sessions every

year since. In the introduction of its constitution is the following presentation of its political animus and objects, and forever settles the question as to the intention of that body of men to make their protection sure by bringing to bear such influences on both the then existing parties as to insure their safety. It reads as follows :

"2d. That the owners of breweries are separately unable to exercise a *proper influence* in the interest of the craft in the *legislature and public administration*.

"3d. That it appears especially necessary for the brewing trade that its interests be vigorously and energetically prosecuted before the *legislative and executive departments*, . . . exerting a direct as well as an indirect influence on *political* and social relations."

A further motive for its organization is stated to be "to foster and protect the trade from many threatening dangers," and name these to be :

"1st. The progress of the prohibition cause: Thirteen states and territories having enacted the Maine law.

"2d. Taxation that would cripple the beer trade."

At the various meetings of this congress, representatives of the revenue department of the government were present, notably, Green S. Raum, commissioner of internal revenue, who on several occasions delivered speeches of congratulations and commendation, and assured the members he was there to learn their wishes and, if possible, comply with their requests as to any changes in the administration of the laws in his power, in the way of making the collection of the taxes less irksome.

At the Brewers' congress, held in Chicago in 1867, the report of a committee "on the menacing attitude of temperance and Sabbatarian fanatics toward the business" contained the following resolution:

"WHEREAS, The action and influence of the Temperance party is in direct opposition to the principles of individual freedom and political equality upon which our American Union is founded; therefore,

"*Resolved*, That we will use all means to stay the progress of this fanatical party, and to secure our individual rights as citizens, and that we will sustain no candidate, of whatever party, in any election, who is in any way disposed toward the total abstinence cause."

At the eighth Beer Brewers' congress, held at Buffalo, July 8, 1868, this resolution was adopted:

"*Resolved*, That we will continue in the future, as we have in the past, to battle for the promotion of the cause of civil and

religious liberty throughout the United States; that we will use all honorable means to deprive the political and puritanical temperance men of the power they have so long exercised in the councils of the political parties in this country, and that, for that purpose, we will support no candidate for any office who is identified with this illiberal and narrow-minded element."

These resolutions are only samples. They could be multiplied by hundreds, passed and flaunted in the face of the public, by every gathering of the foes of temperance legislation. And it must be remembered that it was during the time that these meetings were held and resolutions were being passed that a large part of the temperance and prohibitory legislation, heretofore alluded to, disappeared from the statute books of the various states. The better part of the communities were engaged in the effort to secure the results of the war and to resume specie payment. The saloon interest were busy building up their traffic, and when, in caucus, two candidates were proposed, both sound on the financial and reconstruction questions, the only question was, which one are we most likely to elect? And the beer interest, by acting on the principle laid down in the foregoing resolutions, were able to make it appear that the man who was a defender of beer was the man who had the most strength before the people. Thus it was that while the loyal and temperate citizens of this country were engaged in furthering the cause of freedom and good government in one direction, the makers and venders of beer and

whiskey, on the other hand, were stealing the prohibitory laws off the statute books. While Americans were striking the shackles from four millions of black men and securing their liberty, the liquor traffic, almost entirely carried on and managed by foreigners and those who do not understand our institutions, was letting loose a more relentless, tireless and deadly foe than the blood-hound, on all the millions in our borders, and binding the shackles of a more degrading and onerous slavery on more men than the war had freed, or had fallen in defense of the government. But at last the time came when earnest, thoughtful men saw all this and began to cast about for a remedy. In various localities and at various times they made efforts to act in the old political parties as they had done before the war, but they found a new element in control of those parties. Instead of the thoughtful, high-minded men, bent upon a great purpose, they found parties with no purpose but victory over each other, and leaders with no purpose but spoils. The men who had made the Democratic and Republican parties had almost entirely disappeared, and in their places some good men but more corrupt ones, and all controlled by a vicious caucus system, by which the slums were able to pollute the fountain-head of all legislative action, in a measure controlling the judiciary and corrupting the legislative and executive branches of the government.

They found that the leaders of these two parties had read the resolutions we have set forth above, and that they had learned by experience that these men were in earnest in their determination to support

no party that did not stand by them in their demands for free beer and a Godless Sunday.

They found that these party managers could weigh up the *vote* of the beer element on the one side against the petitions, resolutions and prayers of the other, and had found that the *beer vote* was the only one on which there was any doubt as to where it would be found on election day. That vote had to be secured, and to do that every remonstrance of the friends of temperance was disregarded. This was the condition of politics on this question from the close of the war until the radical friends of temperance in 1867 began declaring for separate political action, to which declaration they felt themselves impelled by the position of the old parties and their utter helplessness in those parties.

At the General State Temperance convention of Pennsylvania, held at Harrisburg, February, 1867, the following was adopted:

Resolved, That while we do not wish to enter the arena of political or party strife, yet believing the ballot to be the freeman's weapon, and that temperance has its political as well as moral aspects, and when it becomes necessary the one mode of advocacy has equal claims with the other, we think it proper to declare that if the adversaries of temperance shall continue to receive the aid and countenance of present political parties, we shall not hesitate to break over political bands and seek redress through the ballot-box."

The Grand Lodge of Good Templars of Pennsylvania was in session (June 17, 1867) at Pittsburgh when the beer brewers' resolve upon political action (at Chi-

cago) was published, and the following resolution is part of the action taken thereon by that body:

"*Resolved*, That as the Beer Brewers' Congress of the United States, at their session in Chicago, and the Liquor League of Philadelphia, have declared that they 'will sustain no candidate, of whatever party, in any election, who is any way disposed toward the total abstinence cause,' we do accept the issue thus made, and declare that we will not vote for men who countenance the liquor traffic, or degrade their official positions by the use of intoxicating liquors."

At the session of the Right Worthy Grand Lodge of Good Templars, at Richmond, Indiana, May 28, 1868, the following was adopted:

"WHEREAS, We are convinced of the absolute necessity of political action in order to the uniform and ultimate success of the temperance reform; and

"WHEREAS, It is evident that neither of the now existing parties will formally adopt our principles; therefore,

"*Resolved*, That we recommend to the temperance people of the country the organization of a National political party, whose platform of principles shall contain prohibition of the manufacture, importation and sale of intoxicating liquors to be used as a beverage."

In 1868 the Prohibitionists of Illinois organized, but we believe that organization was not continued for any great length of time. A temperance political party was also organized in Michigan in that year, but we have no evidence that its organization has been continued, or that it was

ever regularly merged in the Prohibition party of that state.

The Sixth National Temperance convention in the order (beginning with that of 1833), held at Cleveland, Ohio, July 29-30, 1868, declared that:

"WHEREAS, The liquor dealers of our country have declared the traffic in intoxicating drinks to be a legitimate part of American commerce, and deny the right to prohibit or restrict the same, and, through their leagues and congresses have repeatedly avowed their purpose to vote for no man in favor of total abstinence, and have constantly used their political power for the continuance of their trade, and have in the past received the countenance of political parties in support of the positions thus assumed; therefore,

"*Resolved*, That in behalf of the public peace and welfare, we accept the issue, and will meet them at the polls in resistance of these iniquitous demands.

"*Resolved*, That temperance, having its political as well as moral aspects and duties, demands the persistent use of the ballot for its promotion, . . . and we exhort the friends of temperance by every practical method, in their several localities, to secure righteous political action for the advancement of the cause."

About this time numerous conventions and meetings of various temperance orders resolved in favor of separate political action, notably those of the State Temperance convention of Pennsylvania, held at Harrisburg in February, 1887, and of the Right Worthy Grand Lodge of Good Templars at Richmond, Indiana, May 28, 1868, in which strong resolutions

were passed in answer to those of the friends of the liquor traffic and more or less clearly declaring for independent political action.

In the fall of 1868 Jay Odell of Cleveland addressed letters to a number of prominent persons in the country, setting forth the effects of the drink traffic, and suggesting the method of a separate political party to take up the work of its destruction, and asking these men this question: "What shall be done to change this state of things?"

These letters were addressed, among others, to Henry Ward Beecher, Gerritt Smith, Charles G. Finney. To some he received no answer—notably that to Mr. Beecher—some with apparent interest, and some with indifference. President Finney wrote: "It was a very grave question, one of great importance; that the church was not doing its duty in that regard; it was backing and filling and was cowardly and too conservative. He would gladly aid the new movement, but his advanced age, his declining physical vigor and his multiplicity of duties would prevent him from entering as actively in the work as he could wish."

We will now give as briefly as possible the immediate movements which led up to and accomplished the

ORGANIZATION OF THE PROHIBITION PARTY OF OHIO.

At the meeting of the State Temperance Alliance in Columbus in the winter of 1868-9, the committee on political actions was composed of F. Merrick of Delaware, L. B. Silver of Salem (now of Cleveland), and Malon Chance. There

was a majority and minority report on the subject of separate political action, Merrick and Chance on the former and Silver on the latter. In the morning, before Silver arrived at the convention (being detained at his hotel by illness), the majority report was adopted, but Silver persisted in reporting his minority resolution, which was as follows:

"Resolved, That the time has come when the temperance people of Ohio should form themselves into a political party based upon the legal prohibition of the traffic in intoxicating liquors as a beverage."

This resolution came within a few votes of passing, and would, no doubt, have been adopted had not the majority resolution, not demanding immediate separate party action, already been passed. In the spring following, on the twenty-fourth of March, 1869, Jay Odell, George P. Burwell, Grove N. Abbey, Dr. M. G. Tyrrill, Dr. Merrick, J. A. Spencer and others nominated, in the city of Cleveland, the first distinctively Prohibition ticket of which we have any record. It was a city ticket, on which was the name of Grove N. Abbey for mayor. This ticket received 1,049 votes.

During the same winter and early spring Dr. M. G. Tyrrill, chairman of committee of Temperance league, addressed a circular letter to a large number of known temperance advocates throughout the state, from which the following extracts are taken:

"CLEVELAND, OHIO, 1869.

"DEAR SIR:—We have been led to believe that you are in favor of political action as applied to temperance and for

the advancement of the cause. By political action we mean a determination to vote only for openly pledged temperance men, on an independent platform, whose planks shall be total abstinence and prohibition of the liquor traffic. . . . From present party organizations, as organizations, we have nothing to expect. They, at best, ignore our principles and evade any frank discussion of our measures.

" . . . We earnestly ask you to give us your name to be appended to a call for a state convention to be held at an early day at some central and accessible point, then and there to organize a State Temperance party, . . . that by agitation and persistent labor in due time we may hope to gain the final victory and redeem our state from the thralldom of the drunkard-makers' rule.

"You will oblige us by an early answer to this communication, with such suggestions as you may deem necessary, addressed to the undersigned.

"Dr. M. G. TYRRILL,
"Chairman of Committee of Temperance League."

To this letter several hundred answers were received—more than one hundred being from Cuyahoga county, and in all fifty-two counties in the state were heard from.

The call for a state meeting was as follows :

CALL FOR A STATE TEMPERANCE CONVENTION TO ORGANIZE A STATE TEMPERANCE PARTY.

The prevalence of intemperance and its concomitant evils—pauperism, crime, disease and death.

The fact that with our present unorgan-

ized temperance strength, we are unable to elect men to office pledged to our principles, thus failing to secure the enforcement of even existing laws.

That present political organizations not only ignore the temperance issue, but, while making use of the whisky interest as the principal lever for the advancement of their ends, are working in *direct and open opposition* to temperance reformation, and that from them, as organizations, we have nothing to expect.

That our present temperance organizations, while doing good as far as their objects enable them, nevertheless are inoperative to perform the whole work of educating the people to temperance, which can only be done by making the subject a political question.

That the permanent success of any party depends upon the high moral stand which it takes.

That to this end, the principal plank in our platform should be the suppression of the liquor traffic, through a prohibitory liquor law, and the election of sober and upright men to office.

That while those connected with the whisky interest are openly pledged to cast their votes for no man favoring temperance or the enforcement of temperance laws, we accept the challenge thus defiantly sent forth, and will demonstrate our consistency by reversing the pledge.

That the question of most vital importance to our state and country at the present moment is temperance, and as such, demands immediate and determined action at the hands of all who have a respect for the Sabbath, morality, intelligence, virtue, prosperity, home and country.

Recognizing these as facts, and believing that the time for action is now, and that a longer delay would not only be injudicious, but highly criminal, with an abiding faith in the justice of our principles, we ask of all who are in favor of immediate, determined and independent political action, as applied to temper-

ance, AND NONE OTHERS, to meet with us in convention at Crestline on the fourteenth and fifteenth of April, 1869, there to organize a State Temperance party, with prohibition of the liquor traffic for its foundation.

GEORGÉ L. CASE.

[To be continued.]

THE AMERICAN RAILROAD: ITS INCEPTION, EVOLUTION AND RESULTS.

X.

THE MECHANICAL DEVELOPMENT.

THIS chapter is not undertaken with the purpose of furnishing a technical or scientific description or history of the mechanical department of the American railroad. The author lays no claim to that special preparation which such treatment would essentially demand, in the first instance; and in the second, the work has been so thoroughly and adequately performed already by great engineers and railroad specialists, that it would be a thankless task to follow along that well-beaten pathway.

But there is a branch of the subject that has not been so thoroughly pursued—that has not been followed at all, so far as I can discover—and that is, to follow chronologically the announcements of the mechanical wonders and improvements of the railroad from day to day, and the comment upon them, during that fruitful period from about 1828 to 1840—that most prolific season of discovery and surprise. Following the plan that has been already pursued in these pages, the story can be largely and most graphically told in the language of those to whom it all came as

a revelation, and whose wonder or incredulity give to the narrative a point and crispness which would be lost in the more careful and commonplace repetition of another.

The declarations of these onlookers and commentators are given as they come from the records of the day, and are not of necessity endorsed as a true statement of the case at all times, simply because they are reproduced. The prophecy that is not fulfilled, at times becomes as charged with meaning as that which is.

The mechanical genius of America was early turned toward improvements upon various kinds of machinery of which steam was the moving power; and an interesting field of research in that direction is opened in the records of the American patent office. One of the measures passed by congress, under the newly adopted Constitution, was the law by which, in 1790, the right to enjoy letters patent was permitted to the inventors of new machines or processes, or improvements upon old ones. The board having the matter in control

consisted of the secretary of state, the secretary of war and the attorney-general; and the life of such patents was to be fourteen years. The first issued under this law was on July 1, 1790, and only two followed in the course of that year. In 1791 patents were granted to James Rumsey, John Fitch, Nathan Read, John Stevens and Englehart Cruse, severally, for "various modifications of steam apparatus, and for the application of steam as a motive power to navigation and other economical uses."* Several of these had already obtained exclusive privileges for the use of their inventions, from various state legislatures. In 1798 Nicholas I. Roosevelt and James Sullivan secured a patent for a double steam-engine, and soon after succeeded in the construction of an effective engine. Robert McKean, in the same year, patented a steam saw-mill—the first on record.

In 1801 Oliver Evans, an inventor and enthusiast, whose remarkably fulfilled prophecy as to the eventual construction of steam roads has been already given, completed, at his own expense, a small steam-engine, the success of which caused no small degree of excitement and comment. It had a six-inch cylinder and eighteen-inch stroke, and cost \$3,700. It was set to the humble task of grinding plaster of Paris, which had been recently introduced as a fertilizer, and was able to

dispose of twelve tons in twenty-four hours. "It was soon after employed to drive twelve saws, in sawing stone at the rate of one hundred feet of marble in twelve hours. This engine was upon the high-pressure system, since so extensively employed on railways, steamboats and in factories, and which was this year patented by the Cornish engineer Trevithick, in England, whither Evans had sent drawings and specifications of his engine several times during the last twelve or fifteen years, during the whole of which time the inventor had continually urged its importance for the propulsion of carriages, and of steamboats on the western rivers, by the aid of paddle-wheels. It was commenced in the last year, his original purpose being to construct a locomotive steam-carriage, as a debt of honor to the state of Maryland, which, in 1786, granted him exclusive privileges for the use of his improvements in flour-mills and steam-carriages, after his own state had rejected the latter as visionary. He had been unable to find any person to risk the expense, but was encouraged by Professor Robert Patterson of the University of Pennsylvania, and Mr. Charles Taylor, a steam engineer from England, to whom he explained the principles of his engine, which they pronounced new to them. The Philosophical society also so far countenanced it as to reject that portion of a report on steam-engines, by B. F. Latrobe, esq., a scientific engineer of the city, in which he ridiculed the 'steam mania' of Evans and others. The society, however, retained a part of the

*A History of American Manufactures, from 1608 to 1860. Philadelphia, 1868, Vol. II., p. 32. In 1793 the above law was repealed, and on February 21 a new one was passed, prescribing the formalities to be observed in obtaining letters patent, the rights of inventors and the fees to be paid.

report, in which Mr. Latrobe labored to show the impossibility of propelling boats economically by steam, on account of the engine—a scheme nearer realization in America than steam propulsion by land.”*

It would be an ungracious and almost an unpatriotic act to pass this remarkable inventor by, with merely a word as to his effect upon the mechanical development of America and his relation to steam inventions, when his whole life was given to labors which he lived to see so little rewarded and appreciated, and to dreams which only came true after his death. He was regarded as insane by the majority of the generation in which he lived, simply because he looked over the horizon that was beyond the vision of the mass. Had he lived a generation later, a large share of the honor given to others would undoubtedly have been awarded to him, and his wildest dreams stood forth as accomplished facts. How much or how little Oliver Evans actually performed it might be difficult to say, but he was, beyond doubt, one of the pioneers of steam invention who laboriously opened the road to others.

Yet how little we know of him and how few give him a thought when speaking of the inventive genius of America. That little would be even less, had he not, in 1812, been persuaded to place upon record a brief story of his life and labors, a fragment full even yet of a deep life interest, but buried

long since in forgetfulness.† Some portions thereof cannot but be worthy of quotation, as illustrating the dim groping towards results so near at hand in fact and yet so far away to the vision; and as showing the dull conservatism that relegated to Bedlam a great idea, simply because it was too large to be grasped and measured by the ignorance of the age. He tells us how his attention was first turned toward the great object to which his whole life was devoted: “About the year 1772, being then an apprentice to a wheelwright or wagon-maker, I labored to discover some means of propelling land carriages without animal power. All the modes that have since been tried (so far as I have heard of them), such as wind, treadles with ratched wheels, cranktooth, etc., to be wrought by men, presented themselves to my mind, but were considered too futile to deserve an experiment, and I concluded that such motion was impossible for want of a suitable original power.

“But one of my brothers, on a Christmas evening, informed me that he had that day been in company with a neighboring blacksmith's boy, who, for amusement, had stopped up the touch-hole of a gun-barrel, then put in about a gill of water and rammed down a tight wad—after which they put the breech in the smith's fire, when it discharged itself with as loud a crack as if

* ‘A History of American Manufactures,’ Vol. II., p. 97.

† Evans' statement in full may be found in ‘Niles' Register,’ No. 48, June 27, 1835, p. 296. It bears the caption: “Steam-boats and Steam-wagons,” and the date Ellicott's Mills, November 13, 1812.

it had been loaded with powder. It immediately occurred to me that here was the power to propel any wagon, if I could only apply it, and I set myself to work to find out the means. I labored for some time without success. At length a book fell into my hands describing the old atmospheric *steam-engine*. I was astonished to observe that they had so far erred as to use the steam only to form a vacuum to apply the elastic power of the steam for original motion—the power which I supposed irresistible. I renewed my studies with increased ardor, and soon declared that I could make steam-wagons, and endeavored to communicate my ideas to others; but, however practicable the thing appeared to me, my object only excited the ridicule of those to whom I made it known. But I persevered in my belief, and confirmed it by experiments that satisfied me of its reality.

"In the year 1786 I petitioned the legislature of Pennsylvania for the exclusive right to use my improvements in flour-mills, as also steam-wagons, in that state. The committee to whom the petition was referred heard me very patiently while I described the *mill* improvements, but my representations concerning *steam-wagons* made them think me insane. They, however, reported favorably respecting my improvements in the manufacture of flour, and passed an act granting me the exclusive use of them as prayed for."

The act to which reference is made was passed in March, 1787. No notice at all was taken of his ideas in refer-

ence to steam-wagons. But nothing deterred, the inventor made a similar application to the legislature of Maryland, and candidly informed the committee, to whom the matter was referred, of his reception as to steam-wagons at the hands of the Pennsylvania lawmakers, declaring that unless he was given the needed encouragement he would never undertake to make them, "but that, if they would secure to me the right as requested, I would, as soon as I could, apply the principle to practice." "I explained to them," continues the narration, "the great elastic power of steam, as well as my mode of applying it to propel wagons. Mr. Hollingsworth very prudently observed that the grant could injure no one, for he did not think that any man in the world had thought of such a thing before; he therefore wished the encouragement might be afforded, as there was a prospect that it would produce something useful. This kind of argument had the desired effect, and a favorable report was made, May 21, 1787, granting to me, my heirs and assigns, for fourteen years, the exclusive right to make and use my improvements in flour-mills and the steam-wagons in that state. From that period I have felt myself bound in honor to the state of Maryland to produce a steam-wagon as soon as I could conveniently do it. In the year 1789 I paid a visit to Benjamin Chandlee & Sons, clock-makers, men celebrated for their ingenuity, with a view to induce them to join me in the expense and profits of the project. I showed to them my draughts, with the

plan of the engine, and explained the expansive power of steam; all which they appeared to understand, but fearful of the expense and difficulties attending it, declined the concern. However, they certified that I had shown to them the drawings and explained the powers, etc.

"In the same year I went to Endicott's mills, on the Patapsco, near Baltimore, for the purpose of persuading Jonathan Ellicott & Brothers and connections to join me in the expense and profits of making and using steam-wagons. I also showed to them my drawings, and minutely explained to them the powers of steam. They appeared to fully comprehend all I said, and in return informed me of some experiments they themselves had made, one of which they showed me. They placed a gun-barrel, having a hollow arm, with a small hole on one side at the end of the arm, similar to Barker's rotary tube-mill, as described in the books; a gill of water put into this barrel, with fire applied to the breech, caused the steam to issue from the end of the arm with such force as, by reaction, to cause the machine to revolve, as I judged, about one thousand times in a minute for the space of about five minutes, and with considerable force for so small a machine. I tarried here two days, using my best efforts to convince them of the possibility and practicability of propelling wagons on good turnpike roads by the great elastic power of steam. But they also feared the expense and difficulty of execution, and declined the proposition; yet they

heartily esteemed my improvements in the manufacture of flour, and adopted them in their mills, as well as recommended them to others."

His ideas were communicated to others in the same year, but no one could be persuaded to undertake the great financial risk that would be involved. "But very few," the inventor declares, with unconscious pathos, "could understand my explanations, and I could find no one willing to risk the expense of the experiment." "In the year 1800, or 1801," he continues, "never having found a man willing to contribute to the expense, or even to encourage me to risk it myself, it occurred to me that, though I was then in full health, I might be suddenly carried off by the yellow fever that had so often visited our city (Philadelphia), or by some other disease or casualty to which all are liable, and that I had not yet discharged my debt of honor to the state of Maryland by producing the steam-wagon. I determined, therefore, to set to work the next day to construct one. I first waited upon Robert Patterson, professor of mathematics in the University of Pennsylvania, and explained to him my principles, as I also did to Mr. Charles Taylor, steam engineer from England. They both declared these principles to be new to them and highly worthy of a fair experiment, advising me without delay to prove them, in hopes I might produce a more simple, cheap and powerful steam-engine than any in use. These gentlemen were the only persons who had such confidence or afforded me

such advice. I also communicated my plans to B. H. Latrobe at the same time, who publicly pronounced them chimerical, and attempted to demonstrate the absurdity of my principles in his report to the Philosophical Society of Pennsylvania on steam-engines, in which same report he also attempts to show the impossibility of making steam-boats useful on account of the weight of the engine, and I was one of the persons alluded to as being seized with the steam mania, conceiving that wagons and boats could be propelled by steam-engines. The liberality of the members of the society caused them to reject that part of the report which he designed as demonstrative of the absurdity of my principles, saying they had no right to set up their opinion as a stumbling-block in the road of any exertions to make a discovery. They said I might produce something useful and ordered it to be stricken out. What a pity they did not reject his demonstrations respecting steamboats! for, notwithstanding them, they have run, are now running and will run. So has my engine and all its principles completely succeeded, and so will land carriages as soon as these principles are applied to them, as explained to the legislature of Maryland in 1787 and to others long before.

"In consequence of the determination above alluded to, I hired hands and went to work to make a steam-wagon, and had made considerable progress when the thought struck me that, as my steam-engine was entirely different in form as well as in its principles from

all others in use, I could get a patent for it and apply it to mills more profitably than to wagons; for until now I apprehended that as steam mills had been used in England, I could only obtain a patent for wagons and boats. I stopped my work immediately and discharged my hands until I could arrange my engine for mills, laying aside the steam-wagon for a time of more leisure."

Two weeks later Evans commenced the construction of the small engine for the grinding of plaster of Paris, already described in the foregoing. He believed that one thousand dollars investment would see him through, but before he was done with his experiments he found that he had expended three thousand seven hundred—"All that I could command. I had now," he continued, "to begin the world anew at the age of forty-eight, with a large family to support. I had calculated that if I failed in my experiment, the credit I had would be entirely lost, and without money or credit, at my advanced age, with many heavy incumbrances, my way through life appeared dark and gloomy indeed. But I succeeded perfectly with my little engine, and preserved my credit. I could break and grind three hundred bushels of plaster of Paris, or twelve tons, in twenty-four hours, and to show its operations more fully to the public, I applied it to saw stone on the side of Market street, where the driving of twelve saws, in heavy frames, sawing at the rate of one hundred feet of marble stone in twelve hours, made a great show and excited much attention. I

thought this was sufficient to convince the thousands of spectators of the utility of my discovery; but I frequently heard them inquire if the power could be applied to saw timber as well as stone, to grind grain, propel boats, etc., and though I answered in the affirmative, I found they still doubted. I therefore determined to apply my engine to all new uses to introduce it and them to the public. This experiment completely tested the correctness of my principles, according to my most sanguine hopes. The power of my engine rises in a geometrical proportion, while the consumption of fuel has only an arithmetical ratio, in such proportion that every time I added one-fourth more to the consumption of fuel the powers of the engine were doubled; and that twice the quantity of fuel required to drive one saw would drive sixteen saws at least; for when I drove two saws, the consumption was eight bushels of coal in twelve hours, but when twelve saws were driven, the consumption was not more than ten bushels; so that the more we resist the steam the greater is the effect of the engine. On these principles, very light, but powerful engines can be made without the great incumbrance of their own weight, as mentioned in Mr. Latrobe's demonstrations."

In 1804 Evans constructed, by order from the Philadelphia board of health, a machine for cleaning docks.* It consisted of a large scow, on board of which was a five horse-power steam-en-

gine, which operated machinery by which mud was elevated and dumped into scows in waiting. "This," declares the inventor, "was a fine opportunity to show the public that my engine could propel both land and water carriages, and I resolved to do it. When the work was finished I put wheels under it, and though it was equal in weight to two hundred barrels of flour, and the wheels fixed with wooden axle-trees, for this temporary purpose, in a very rough manner, and with great friction, of course, yet with this small engine I transported my burden to the Schuylkill with ease, and when it was launched in the water, I fixed a paddle-wheel at the stern and drove it down the Schuylkill to the Delaware, and up the Delaware to the city, leaving all the vessels going up behind me, at least half way, the wind being ahead. Some wise men undertook to ridicule my experiment of propelling this great weight on land, because the motion was too slow to be useful. I silenced them by answering them that I could make a carriage, to be propelled by steam, for a bet of \$3,000, to run upon a level road, against the swiftest horse they would produce. I was then as confident as I am now that such velocity could be given to carriages.

"Having no doubt of the great utility of steam-carriages on good turnpike roads with proper arrangements for supplying them with water and fuel, and believing that all turnpike companies were deeply interested in putting them into operation, because they would smooth and mend the roads instead of

* To this machine the inventor gave the name *Eruklor Amphibolis*.

injuring them as the narrow wheels do, on the twenty-sixth of September, 1804, I submitted to the consideration of the Lancaster Turnpike company a statement of the cost and profits of a steam-carriage to carry one hundred barrels of flour fifty miles in twenty-four hours, tending to show that one such steam-carriage would make more net profits than ten wagons drawn by ten horses each, on a good turnpike road, and offering to build such a carriage at a very low price. My address closed as follows: 'It is too much for an individual to put into operation every improvement which he may invent. I have no doubt but that my engine will propel boats against the current of the Mississippi, and wagons on turnpike roads, with great profit. I now call upon those whose interest it is to carry this invention into effect. All which is respectfully submitted for your consideration.'

In 1805 he published a book, 'The Young Engineer's Guide,' in which he described the principles of his engine. In the concluding portions of the narration, from which the above extracts are taken, are several descriptive paragraphs and comments, from which the following are culled at random: "I am still willing to make a steam-carriage that will run fifteen miles an hour, on good level railways, on condition that I have double price if it shall run with that velocity, and nothing for it if it shall not come up to that velocity."

"I have had the pleasure of hearing gentlemen of the keenest penetration, and of great mechanical and philosoph-

ical talents, freely give in to the belief that steam-carriages will become very useful."

"Mr. John Ellicott proposed to make roads of substances such as the best turnpikes are made with, with a path for each wheel to run on, having a railway on posts in the middle to guide the tongue of the wagon, and to prevent any other carriage from traveling on it. Then, if the wheels were made broad and the path smooth, there would be very little wear."

"When we reflect upon the obstinate opposition that has been made by a great majority to every step towards improvement—from bad roads to turnpikes, from turnpikes to canal, from canals to railways for horse carriages—it is too much to expect the monstrous leap from bad roads to railways for steam-carriages, at once. If the present shall adopt canals, the next may try the railways with horses, and the third generation use the steam-carriage." It must be remembered that this was written in 1812.*

Returning from this long, but perhaps excusable deviation, we resume once

*Mr. Niles, in explanation of the above narration ('Niles' Register,' No. 40, April 23, 1831), states that it was first published at Mr. Evans' expense, and printed as an *Addendum* to Vol. II. of the 'Register,' but as the copies fell short, all of the 'Registers' of that issue do not contain it. He adds: "The editor well remembers to have heard the same Oliver Evans, in his (the editor's) father's house, some time in 1787 or 1788, declare that 'the man was then living who would see the Ohio and Mississippi covered with steamboats, and the child born who would travel from Philadelphia to Boston, in one day,' by steamboats or wagons. The remembrance is perfect, because, being a child, he long regarded Mr. Evans as *cracked* because of such opinions."

more the thread of American steam invention and improvement. The next point of interest met, in 1803, is also connected with Oliver Evans. In consequence of letters written by him to parties in Kentucky, stating that he had his steam-engine in operation, Captain James McKeever of the United States navy, and Mr. Louis Valcour united in the building of a steamboat of eighty feet keel, to run between Natchez and New Orleans. The boat was built and floated down to New Orleans, to be supplied with an engine of Evans' build. "The subsidence of the river, which was not expected to rise again for six months, having left the boat on dry land, and the capital of the owners having been exhausted, they allowed Mr. William Donaldson to put up the engine in a saw-mill, and were astonished to learn that it was sawing three thousand feet of boards every twelve hours, when boards were selling at sixty dollars per thousand. They were now confident of succeeding with the steamboat, but were disappointed and ruined by the burning of the mill, after two previous incendiary attempts by hand sawyers, whereby they lost fifteen thousand dollars." This engine consumed one and a half cords of wood each day, ran over a year without getting out of order, and in 1810 was set at the task of pressing cotton. In 1804 Evans patented an improvement upon his engine in "the application of a new principle, by means of strong boilers, to retain and confine the steam; thereby increasing the heat in the water, which increases

the elastic power of the steam to a greater degree."

In 1810 Daniel French of New York patented a steam-engine for boats, mills, etc., with vibrating cylinder, and under the right thus secured, he supplied several of the first boats built on the Ohio. In 1811 a patent was granted Robert Fulton for improvements to the engine, and others to John Stevens of New York. In 1812 Colonel John Stevens, whose plan has been already quoted, published his celebrated work, 'Documents Tending to Prove the Superior Advantages of Railways and Steam-Carriages Over Canal Navigation'—an argument which the canal commissioners of New York dismissed with a response that plainly showed that Stevens was classed by contemporary opinion as but little more sound in mind than Evans. During the same year Mellen Battle of Herkimer, New York, was granted a patent for a rotary steam-engine. From the able work upon American manufactures, already quoted, we learn (page 180) that "Oliver Evans, the first steam-engine builder in the United States, had in operation, in February of this year, ten of his high-pressure engines, considered by many more economical and convenient for manufactories than Bolton and Watts. They were from ten to twenty-five horse-power, and were employed, one in Florida, two in Louisiana, one at Lexington, Kentucky, one at Natchez, Mississippi, one at Marietta, Ohio, two at Pittsburgh, one at Middletown, Connecticut, and one at

the Mars Iron works of the builder in Philadelphia. They performed the various operations of sawing timber, grinding grain, drawing wire, grinding glass, turning wood and metals, etc., manufacturing cloth and building steam-engines and machinery. Ten others, most of them of greater powers, were building or ordered, for saw- and grain-mills, paper-mills, rolling-mills, steam-boats, etc., etc. Stackhouse & Rogers built engines at Pittsburgh, under Evans' patent."

There were furnished in 1814 some very practical evidences that steam was to be the great moving power on American waters, no matter what might be its success on land. The steam ferry-boat *Nassau*, which cost three hundred thousand dollars, began regular trips between New York and Long Island; while Robert Fulton built at Pittsburgh, for eastern parties, the steamboat *Vesuvius*, of three hundred and forty tons. She was intended for the New Orleans trade and was one of the first three constructed in the west. "In July, with a cargo, she made one-half the distance from New Orleans to Louisville in ten days, which was regarded as nearly a demonstration of the ability of loaded boats to stem the current of the largest rivers by steam." Another vessel, the *Enterprise*, was built at Brownsville, Pennsylvania, this year, and was equipped with an engine made under D. French's patent. In December she carried a load of ordnance to New Orleans, and afterward made six hundred and twenty-four miles in six and one-half days. Of her history and an interest-

ing incident in her career, we are furnished this account: "This vessel was the first that ever ascended from New Orleans as far as Louisville, which she reached in May, 1816, in twenty-five days. She was commanded by Captain Henry M. Shreve, the inventor of the steam snagboat, to whom the citizens of Louisville gave a public dinner on the occasion. To Captain Shreve the western people considered themselves most indebted, next to Fulton, for the early establishment of steam navigation on their rivers, for having in December of this year, on the first visit of the *Enterprise* to New Orleans, and subsequently with the *Washington*, brought to a legal test the claim of Fulton and his partners to a monopoly of the use of steam propulsion. Both boats were seized as the captain desired, and, the trial having been carried up to the supreme court, resulted in the overthrow of the exclusive pretensions of the prosecutors."

An establishment was opened in Cincinnati, Ohio, in 1817, for the manufacturing of steam- and fire-engines, especially steam-engines for boats, and for other machinery, with a capital of eighty thousand dollars, and employing one hundred men. It ran for some time with apparent success, but was compelled to suspend in 1820-21, because of the great financial pressure. In 1821 a patent was granted Minus Ward of Columbia, South Carolina, for an improvement in steam-engines—consisting of an altering or rotary engine, which enabled the piston-rod to describe a rotary motion upon its extreme end, when turning a

wheel. Charles Williams of Boston also received one for improvements in railways. In a communication, published in the *Richmond Whig*, under date of December 13, 1845, Williams claims to have invented, in 1817, "a wooden railway, to remove dirt, and during this and the following year, to have planned a small engine in Boston, to use steam, and therefore to have been the first to apply steam to railroads, the first locomotive of Stephens having been copied from his invention."*

A great deal of interest was created upon this side of the sea in 1823, by the successful operations of an engine in the works of Jacob Perkins in London, which had received several patents from the British government. Among the features of special commendation attached to it were great simplicity of construction, economy of cost, weight of metal, space and quantity of water and fuel required, "which adapted it for navigation purposes—a great increase of power. A cylinder two inches in diameter, eighteen inches long, with a stroke of only twelve inches, gave the power of ten horses, at an expense of only eighteen hundred and forty-eight cubic inches of water and two bushels of coal daily." No claim of a new principle was made for it, but a new application of those already known. In 1824 a number of patents upon points connected with the steam-engine were issued; and it was also in this year that John Stevens of Hoboken, New Jersey, secured his, covering certain improvements in railways. In 1826 one was

granted to Joseph Eve of London, England, for improvements to the stationary engine, and of him we are told that "Eve's steam-engine, for which he obtained a patent in 1818, while a resident of Georgia, excited considerable interest in England for its novelty, having no parts in common with ordinary engines, no cylinder, piston, valve-cock, fly-wheel, crank, condenser or reciprocating parts whatever. It was rotary and high-pressure, and was impelled by the direct impulse of the steam acting on surfaces at right angles with the motion, securing its whole power under favorable circumstances." The same year saw a patent issued to D. Callings and J. D. Galup of Wilkesbarre, Pennsylvania, for generating steam by anthracite; to William G. Berry and J. T. Osborn of Cincinnati, Ohio, for a locomotive saw-mill; and passing a little further along, we find, on December 10, 1828, "the first recorded patent for a locomotive steam-engine in America."† It was granted to William Howard of Baltimore.

Turning to the columns of the *Baltimore American* of cotemporary date, it will be discovered that "our worthy fellow-citizen, Dr. William Howard, civil engineer in the survey of the United States, has invented an improved *railway wagon*, which bids fair to make an important addition to the already great advantages and facilities

†These quoted words are taken from the 'American Manufactures,' Vol. II., p. 332; but from what follows in the above, we are led to wonder whether it was a locomotive or a railroad car to which his patent applied.

* Hunt's Merchants' Magazine, Vol. XIV., p. 249.

which are afforded by this kind of road." The purposes to be accomplished by the improvements of this "wagon" are dual: First, to lessen the whole amount of friction and to diminish, in the same proportion, the force necessary to propel a given load; and, second, to render the wagon capable of being moved with nearly the same ease and power on a serpentine as on a straight road. The main idea of the car seems to have consisted of friction wheels, working on an axle inside the road wheels.

Toward the end of 1828, Ross Winans of New Jersey made his appearance in Baltimore, then the great centre of railroad experiment and enterprise, and exhibited a model of what, for a better term, a Baltimore editor describes as "a rail wagon." Its weight was about one hundred and twenty-five pounds, and upon it was placed five hundredweight, with two men added. "The whole," says one account of the exhibition, "was drawn by a piece of twine, or pack-thread, playing over a pulley, by which a half-pound weight was suspended. . . . Thus this piece of pack-thread and half-pound power drew, across a large room," the wagon and its contents—a total of nine hundred and eighty-five pounds. John L. Sullivan, a civil engineer of Philadelphia, who examined the wagon, has left us this condensed description of the principle upon which the results were produced: "The principle of this improvement is founded in the effect of compound leverage, producing a slow movement at the bearing axle,

though the carriage proceeds with speed. This machine demonstrates that slow motion between rubbing surfaces diminishes friction in the ratio of that slowness. The object, then, of the improvement is to cause the axles which bear the load, between which and the superincumbent weight there must, of course, be rubbing, to move or revolve very much slower than the axles of the wheels which travel on the railway. Of course, this cannot be done with the last-mentioned axles alone, but is done by the axles of wheels which are made to move by resting on the revolving axles of the traveling wheels. It may be compared to one wagon upon another, the wheels of the upper one standing on rounded planes on the axles of the lower one. The upper wheels will move very slow, because they travel only the circumference of the axle on which they stand, and their axles as much slower as they are less in diameter, so that if the size of the upper wheels be half that of the lower ones, it may easily be that the relative motion of the upper axle to that of the periphery of the lower wheels may be as one to four or five hundred."

A test of a more practical character was made in January, 1829, also at Baltimore. A temporary railway fifty feet in length was laid down and a car placed upon it. The car itself weighed sixteen hundred pounds, and was given a load of fifteen hundred and sixty pounds, and thirty-four men in addition—a total weight of about eighty-two hundred pounds. This load was readily moved by one man. "The practical

test," says the report of the experiment, "which the invention of Mr. Winans' has thus undergone, has completely satisfied everyone who witnessed it of its high value and importance in railway transportation, and that it must once and forever settle the question of the superiority of railroads over canals. Our railroad company will have it in use on the great work they have in charge, and it must prove of almost incalculable advantage."

By a letter from Baltimore to the *National Intelligencer*, in the February following, it will be learned that the railroad managers are satisfied that by the aid of this car "a horse can pull thirty tons, with great ease, four miles an hour; we have, therefore, but one matter to ascertain, and that is: Will the wagon be durable? Our ablest mechanics say it will. We now have the wagons at work on the road, and a few weeks will settle this question."

Mr. Winans was not, however, to have this large field of profitable investment altogether to himself. Dr. William Howard, whose invention has already been mentioned, addresses the Baltimore *American* a long letter, under date of Charleston, South Carolina, January 20, 1829, in which he refers to Winans' car and declares that having "contrived a carriage," which "is intended, in part, to effect the same object as that of these gentlemen"—Winans and Sullivan—he deems it due to himself to ask the public to listen to an explanation of his own invention and the work he was sure it would accomplish. He then advances to his purpose in the following words:

"The carriage contrived by me is the result of long thought on the subject, and of many an hour's reflection during my solitary rides in the forests of western Maryland and Virginia, while engaged in the *reconnaissance* of the Baltimore & Ohio road. I soon perceived that it was impossible to find any route for this road which would not require numerous and sudden curvatures, which, without some better contrivance than the common carriage, would prove a serious detriment to the utility of the work. At the same time it appeared a great desideratum to lessen the traction on the road by means sufficiently simple to insure their practical utility, and to make the force of traction necessary to draw a given load on the railroad, at the greatest, not more than that required on a canal. These two objects, therefore, I have kept steadily in view, and I believe I have satisfactorily attained them. The diminution of friction is effected by a friction wheel placed over the rounded axle. The axle supports the whole weight of the carriage through the medium of these wheels. The use of a similar contrivance to diminish friction in machinery is so well known that its application to the present purpose appeared almost obvious, and I find since I have procured my patent, of which I was not aware at the time, that the same idea has occurred to several persons. This application of the friction wheel is also subsidiary to the other end attained by my carriage, that of moving in a curved road with scarcely any increase of friction, and which is effected in the follow-

ing manner: It is plain that when advancing on a curve the outer wheel of a carriage must move faster than the inner one. In the common construction, this can only be done by sliding on the rail. To obviate this I make either one or both wheels loose on the axle, but accurately fitted on it, so as to prevent as much as possible all lateral shaking. By this arrangement (the friction wheel insuring this) the wheels revolve with the axle, and only move independent of it a quantity sufficient to make up the difference of velocity between one wheel and its fellow when moving on a curve line. That the hind and fore wheels should follow each other accurately on a circular road, without lateral friction, it is necessary that their axles should be kept in the direction of the radii of the circles on which the carriage moves. This is effected by connecting these axles at a point equally distant from the centre of each. The effect of this connection is such that in the models I have made, when placed on the floor and adjusted to a given curve, the wheels, when chalked, make only a single track, and the carriage returns accurately to the place it set out from."

Dr. Howard confesses that it is due to "Mr. Minus Ward to state that after he had determined in his own mind the proper mode of forming this connection," and "had made a model to try it," he found, on reading Ward's pamphlet, that he had formed the idea and applied it to his locomotive some time before. "Although I had previously read this pamphlet," he adds, "I am not

aware that I received at all the suggestion from it, though I may have done so without being sensible of it."

Yet another Richmond was in the field, and in the same month we are informed by the *Baltimore Chronicle* that a "railroad car" was being constructed, under the direction of Mr. Isaac Knight, the inventor, "by that excellent machinist, Mr. John Rogers, at his workshop near Jones street." The principle upon which it was to work was very much like that of Winans, "the difference consisting alone in the manner of applying the friction wheels; these are placed upon the top of the main axles; are fixed within the side of the body of the carriage, and are so elevated as not to be incommoded by snow or mud." The *Baltimore American*, in describing the experiments with this car, says: "The president of the Baltimore & Susquehanna Railroad company, attended by several other gentlemen, was present when the experiment was made of starting and propelling the car (burdened with a load of one thousand pounds' weight) by a single thread of No. 40 sewing cotton. The same experiment was tried in the afternoon, with 1,205 pounds on the car, in the presence of a number of our most distinguished citizens, who were highly gratified, and came away fully impressed with the great value of the discovery, and of the peculiar advantages resulting from the manner in which Mr. Knight applies his friction wheels. As the public will doubtless soon be favored with a display of this wonderful car,

we shall content ourselves with barely saying it reflects great credit on the ingenious inventor, and that we feel assured it will command for him that patronage which he so justly merits."

Winans' cars were soon put to the test of actual labor and were not found wanting. Two were placed in immediate use on the Baltimore & Ohio in removing earth, while others were added as they were needed: "Four of these cars, each laden with two cubic yards of wet gravel and sand and weighing in all fifteen tons, are drawn backward or forward by a single horse, on a section of the road seven hundred yards long, though the railway itself is imperfectly and cheaply fitted for a temporary purpose, yielding considerably to the pressure of the weight upon them and, of course, increasing the labor of the horse."

The same vehicle was soon made the subject of tests upon the Charleston & Hamburg, where it achieved a like success. "I was present," states one witness, in the *Charleston Courier*, "and saw it loaded with 276 road iron plates, weighing 36 pounds each, making 9,936 pounds. This load was propelled by two hands on a level, with ease, and six hands propelled it up an ascent of 135 feet to the mile."

Some interesting experiments were made with cars on the Baltimore & Ohio, in December, 1829, in the presence of many visitors, from various parts of the country, who were gaining information for use elsewhere. They were kept up during the week, and the following are recorded among the results

that were produced: "One horse, with the same apparent ease that he would have drawn a gig over a smooth, hard road, moved two of Winans' cars, laden with forty-one persons, at the rate of between ten and eleven miles an hour. The distance traveled, out and in, was about five miles.

"Another horse drew twenty-five persons, on a carriage of another construction, to the end of the rails and back, at a lively trot. A second trip was made with the same horse, carriage and load, at the rate of twelve miles an hour. A single horse then drew two carriages and fifty-five persons nine miles an hour; a third carriage was attached, and the whole loaded with eighty-four men and women, and the horse performed the trip with the same ease and velocity. Another carriage, with seven persons, was driven by a winch, worked by two of them. Two dogs, attached to a car, trotted off with a load of six persons."

The Winans' car, as representing American ingenuity and mechanism, obtained an early recognition and use in England, patents upon it not only being secured in the United States but in the United Kingdom. The *Liverpool Mercantile Advertiser* of August 3, 1829, devotes extended space to its description and to the details of a trial upon the Liverpool & Manchester, and earnestly congratulates "the public and the proprietors of railroads on this discovery."

Before proceeding to a consideration of the development of the locomotive engine subsequent to the Rainhill experi-

ments already given, it seems almost necessary to give a more detailed genesis of that remarkable and revolutionizing piece of mechanism than has yet been attempted; and in doing so, the freest use will be made of the researches and investigations, and in many cases the language, of that excellent authority, Nicholas Wood, who was one of the ablest, as he was one of the first, writers upon railway mechanism.*

The slow progress of the steam engine has been already shown, up to the time of Watt. Its early labors for a long time, even after the actual construction of an engine of a practical character, were almost entirely confined to the raising of water by means of pumps—heavy, unwieldy, complicated and confined to narrow limits of usefulness. When the genius of Watt was applied to it, much of this was changed. Its action was no longer “confined to a rectilinear motion, or that of pumping water, but converted into a rotary motion, and applied to almost every manufactory.” In a note appended to an edition of Robinson’s ‘*Mechanical Philosophy*,’ Watt himself says of the first dawning idea in his mind of the possibility of a locomotive engine: “My attention was first directed, in the year 1759, to the subject of steam-engines, by the late Dr. Robinson, then a student in the University of Glasgow, and nearly of my own age. He, at that time, threw out an idea of applying the power of the steam-engine to the moving of wheel-carriages and to other

purposes, but the scheme was soon abandoned, on his going abroad.” He also experimented somewhat with steam, acting by its expansive force, but did not carry out his idea of constructing an engine on that principle. He further says: “I described this engine in the fourth article of my patent in 1769, and again, in the specification of another patent in the year 1784, together with a mode of applying it to the moving of wheel-carriages.”

In March, 1802, Messrs. Trevithick and Vivian took a long step forward in the direction of steam invention, by obtaining a patent for the application of the expansive force of steam to the propulsion of carriages upon railroads. In the specification of their patent they gave a drawing of their engine, applied to move a carriage upon the common roads. It resembles in form “the common stage-coaches used for conveyance of passengers; a square iron case, containing the boiler and cylinder, is placed behind the large or hinder wheels of the carriage, and is attached to a frame supported from the axles of those wheels. The cylinder was in a horizontal position, and the piston-rod was projected backwards and forwards, in the line of the road, towards the front of the carriage. Across the square frame, supported by the wheel of the carriage, an axle was extended, reaching a little beyond the frame on each side. This axle was cranked in the middle, in a line with the centre of the cylinder, and a connecting-rod, passing from the end of this piston, turned this axle round, and produced a continued rotary motion

* ‘*A Practical Treatise on Railroads*,’ etc., by Nicholas Wood, London, 1838, p. 275.

of it when the piston was moved backwards and forwards in the cylinder. Upon both ends of this axle cog-wheels were fixed, which moved into similar cog-wheels upon the axle of the wheels of the carriages, so that, when a rotary motion was produced in the cranked axle by the piston-rod, the rotary motion was communicated to the axle of the larger or hinder wheels of the carriage, and these wheels being fixed upon and turning round with the axle, gave a progressive motion to the carriage. Upon one end of this axle was fixed a fly-wheel, to secure a rotary motion in the axle at the termination of each stroke. The fore-wheels were of the usual form, which, turning to different angles with the body of the carriage, directed its motion upon the road, and, in cases where abrupt turns of the road required sudden changes in the direction of the carriage, the toothed or cog-wheels on either side could be thrown out of gear, and the opposite wheel made to drive the carriage into the proper obliquity of the road. Upon the periphery of the fly-wheel a brake was attached, to regulate the descent of the carriage down steep hills. The contrivances to effect the requisite motions of the various parts of this machine are extremely ingenious; and, considered as the first attempt of the application of steam to carriages upon common roads, it is entitled to great commendation."

Finding little encouragement for the construction of road engines, the inventors set themselves to work upon those for the coal railways already in

existence; and it was two years only after the date of their patent (1804) that Trevithick had his famous little machine at work in South Wales. It had an eight-inch cylinder, with a four feet six inches stroke, and "drew after it, upon the railroad, as many carriages as carried ten tons of bar-iron from a distance of nine miles; which it performed without any supply of water to that contained in the boiler at the time of setting out, traveling at the rate of five miles an hour." The objection already referred to—soon proved an imaginary one—that the wheels of the engine would have no adhesion upon the rail to move the engine forward, prevented an early adoption. It was proposed by Trevithick and Vivian that the external periphery of the wheels should be made rough or uneven, by using projecting heads of nails, bolts, or cross-grooves; or, "in case of a hard pull, to cause a lever, bolt or claw to project through the rim of one or both of the wheels driven by the engine, to take hold of the ground." "But it will appear obvious to anyone," remarks Wood, in commenting upon the above, "that this mode of remedying one defect would be the means of producing another; for any projections would not only cause considerable resistance to the progressive motion of the engine, but would also tend to injure the rails of the road."

It was this objection that led Mr. Blenkinsop of Middleton colliery, near Leeds, England, to construct an engine, and obtain a patent upon it, in 1811, for the application of a rack, or toothed

rail, stretched along the whole distance to be traveled, "into which cog-wheels, turned by the engine, worked, and thus produced a progressive motion in the carriages." The teeth projected from the side of the rail two or three inches, thus forming a longitudinal toothed rack. The boiler of this engine was cylindrical, and, heated by a circular tube passing through it, terminated at one end by the chimney. The toothed rail was laid only on one side of the road, a common rail being placed upon the other. The cog-wheels were varied in size, according to the velocity with which it was desired to travel. By the use of this contrivance, the engine was enabled to ascend acclivities which Trevithick's was unable to mount. Its usefulness was tried and proved upon the Middleton colliery road, but it went suddenly out of fashion as soon as the adhesion of the plain wheel upon the common road was understood.

Another idea upon which an English patent was obtained in December, 1812, was that of William and Edward Chapman, who proposed to effect the locomotion of an engine by means of a chain stretched along the middle of the railroad, over its entire length, secured properly at each end, and over the whole course at needed intervals. "This chain was made to wind partly round, or to pass over a ground wheel, turned by the engine, of such a form that the wheel could not turn round without causing the chain to pass along with it. When this wheel was turned round by the engine, as the chain was fastened firmly at the end and could not be

drawn forward by the wheel, the carriage was, therefore, moved forward in the line of the chain and road. The carriages containing the goods were attached to the engine carriage, and thus conveyed along the railway. At intervals of every eight or ten yards, the chain was secured by means of upright forks, into which it fell, when left at liberty; this was for the purpose of taking off the strain from the chain, when more than one engine was traveling by it. The chain was prevented slipping, when the grooved wheel was turned round, by friction rollers pressing it into the groove."

This idea was put into use upon the Heaton railroad, but was soon abandoned, the liability of the arrangement to get out of order, added to the great friction of the chain, rendering it of little practical benefit. In 1813 another ingenious idea was worked out by Mr. Brunton, who supplied an engine with two prongs, or legs, that were made to strike upon the ground in the rear of the locomotive and propel it along, after the manner of pushing a boat forward in shallow waters with a pole. These prongs were worked by steam-power, and one would be lifted and set forward in place while the other was firmly set in the ground and moving the engine forward. The inventor has furnished us with an account* of his experiment with this singular vehicle. His boiler was of wrought iron, five feet six inches long and three feet in diameter. Said he: "The machine being placed on a railway,

* 'Repertory of Arts,' Vol. XXIV.

I first ascertained the power necessary to move it at the rate of two miles and a half in an hour, which I found to be eighty-four pounds. I then applied a chain to the hinder part of the machine, by which, as the machine moved forward, a weight was raised at the same time and rate, and found that, with steam equal to forty or forty-five pounds pressure on the square inch, the machine was propelled at the rate of two miles and a half per hour, and raised perpendicularly eight hundred and twelve pounds at the same speed, thus making the whole power equal to eight hundred and ninety-six pounds at two miles and a half per hour, equal to six horses, nearly."

An engine of the Trevithick description was sent to one Mr. Blackett of Wylam; but instead of being used upon his railroad, was set to blowing a cupola at an iron foundry in Newcastle. In 1813, however, Mr. Blackett built an engine of the same kind, which was set upon his railroad, where it worked by the adhesion of its wheels upon the rails. "His railroad was a plate-rail," says Mr. Wood, "and would consequently present more friction or resistance to the wheels than an edge-rail, and, on that account, the amount of adhesion would be greater than upon the latter rail. Still, the credit is due to Mr. Blackett for proving that the locomotion could be applied by that means alone. . . . It was, however, a question of the utmost importance to ascertain if the adhesion of the wheels of the engine upon the rails were sufficient to produce a progressive

motion in the engine, when loaded with a train of carriages, without the aid of any other contrivance; and it was by the introduction and continued use of them upon the Wylam railroad that this question was decided, and it was proved that upon railroads nearly level, or with very moderate inclination, the adhesion of the wheels alone was sufficient in all the different kinds of weather when the surface of the rails was not covered with snow. Mr. Hedley informs us that they first tried, by manual labor, how much weight the wheels of a common carriage would overcome without slipping round upon the rail, and having found the proportion it bore to the weight, they thence ascertained that the weight of the engine would produce sufficient adhesion to drag after it, upon their railroad, a requisite number of wagons."

The first engine run upon the Wylam road had only one cylinder, with a fly-wheel to regulate the action of the crank, which was soon proved to be a troublesome and uncertain arrangement. When the engine was stopped, "and the crank and connecting-rod in the same line, the power of the cylinder had then no effect in turning the crank round; and the engine had to be moved by levers applied to the spokes of the fly-wheel until the crank formed such an angle with the connecting-rod that the engine got sufficient power to produce a rotary motion and propel itself forward."

George Stephenson constructed his first engine in the early part of 1814, and on July 25 of that year it had its

first trial upon the Killingworth colliery railroad. It had two cylinders, each eight inches in diameter and two feet stroke; the boiler was cylindrical, eight feet long and thirty-four inches in diameter; the tube, twenty inches in diameter, passing through the boiler. The piece of road upon which the first test was made was laid with edge-rail, ascending about one yard in four hundred and fifty. It was found that the engine could draw, exclusive of its own weight, eight loaded carriages, weighing altogether about thirty tons, at the rate of four miles an hour. From thence onward it was kept at regular work. When it had been employed a short time, it was found that "sufficient adhesion existed upon the edge-rail to perform the requisite traction to the load. At first grooved sheaves were fixed upon the hinder traveling wheels of the engine, and similar grooved sheaves upon the fore-wheels of the

convoy carriage, containing the coals and water, with an endless chain working over each to procure the adhesion of the wheels of the convoy carriage, in addition to the adhesion of the engine wheels; but on trial it was not found necessary to resort to the aid of this contrivance, as the adhesion of the engine wheels alone was found sufficient to produce the desired effect." Various important improvements upon this engine were made and patented from time to time.

This rapid review brings us to the period of the great experiments, already fully given, upon the Liverpool & Manchester in 1829, when the value of the locomotive, as a means of railroad power, was fully demonstrated. It will be in order, next, to return to the evolution of mechanism upon the American lines.

J. H. KENNEDY.

[To be continued.]

THE RAILROAD MEN OF AMERICA.

ERASTUS CORNING.

THE name of Erastus Corning is so closely linked with the material development of New York that no history of the inception and growth of her railroads—saying nothing of other important measures—could be written without touching upon his life and labors; and it is certain that had his genius and industry been lacking at certain important points of

progress, much that was successfully done would have been left undone. He came originally of a stock, the Puritan, which endowed him with many of those natural gifts which are sure to command success; as he was a direct descendant of Samuel Corning, sometimes known as "Ensign Corning," who was among the very first settlers of Massachusetts and whose name

appears on the records of the town of Beverly, in that state, as early as the year 1641. That this ancestor was a person of ability, means and good repute, is evident from the frequent mention of his name in the same records at subsequent periods during the century in connection with the government of the town and church affairs.

Erastus Corning was born at Norwich, Connecticut, on December 14, 1794. His father was Bliss Corning, a native of Preston, Connecticut, who was born in 1763, and while yet a boy served in the Continental army during the closing period of the Revolutionary war. His services were acknowledged by a pension, which he received up to the time of his death. He was united in marriage to Lucinda Smith, whose father and brother had also seen gallant service in the patriot cause; and after marriage settled in Norwich, where Erastus, the fourth of a family of eleven children, first saw the light of day.

When the son was thirteen years of age the family removed to Chatham, Columbia county, New York, where life was commenced anew upon a farm. The education of the son Erastus had been obtained in the common schools of the neighborhood, his last teacher in the district school of Norwich being none other than Pelatiah Perit, subsequently a member of the firm of Goodhue & Company of New York city, and at the time of his death, which occurred a few years since, president of the chamber of commerce.

The inclinations of the boy turned towards mercantile pursuits, and shortly after the removal to Chatham he secured a clerkship in the hardware and iron store of Hart & Smith, in Troy, his uncle, Ben-

jamin Smith, being a member of the firm. Mr. Smith was a strong Jefferson Democrat and held some important local offices in Troy. Under his influence and guidance the young lad passed the next five years of his life and acquired many of those sterling business qualities, as well as the strong political bias, for which he was afterwards distinguished. Upon the breaking out of the War of 1812 the firm of Hart & Smith was dissolved and young Corning entered the employment of Mr. Hart, with whom he remained till 1814, when, seeking a larger field of operations and greater scope for his abilities, he removed to Albany and entered the iron and hardware store of John Spencer & Company. After serving two years as clerk he was admitted to the firm, and in 1824, upon the death of Mr. Spencer, conducted the business for some time upon his own responsibility. He followed the hardware and iron business for nearly half a century, and had during that period several partners. With his first associate, Mr. John S. Norton, he purchased the rolling mill at Troy, known as the Albany Iron works. At the expiration of four years Mr. Norton retired from the firm. The succeeding partners of Mr. Corning were James Horner, Gilbert C. Davidson, John F. Winslow, and his son, Erastus Corning, jr., who, on the death of his father, succeeded to the business, which he still continues. The transactions of the house of Corning & Company were then more extensive than that of any other iron house in the country, and were under the supervision of Mr. Corning, although the details were largely left to the direction of his partners and clerks.

The energetic nature and keen commercial knowledge of Mr. Corning soon led him into other and wider fields of usefulness, and made his genius and capital felt in all quarters of his neighborhood and state. He early discerned the great advantages to be derived from the newly projected railroad, that, from 1825 to 1840, filled the land with excitement and opened innumerable avenues to public and private enterprise. He embarked fearlessly in the aid of those of his own section, and was among the most ardent and courageous among those who risked their money and gave their influence to the new method of travel—a connection which he held all through life, as he was yet a director in many of the leading lines at the time of his death. He was one of the projectors of the Mohawk & Hudson road, which has been already described; was one of the commissioners for organizing the Utica & Schenectady line that was finished three years later, and was president of the company from the outset until the consolidation in 1854. This consolidation of the roads between Albany and Buffalo, which was the subject of so much adverse criticism at the time, was an absolute business necessity. When the Erie railroad was completed to Lake Erie and the Pennsylvania Central had finished its track, it was apparent that the several companies which now compose the New York Central, and which at that time were running under distinct organizations, could not successfully compete with these great lines unless they were consolidated and operated by one controlling mind. This was accordingly effected and Mr. Corning remained president of the consolidation,

which took the name of New York Central, until 1865, when he resigned the office. As a railroad manager he conspicuously exhibited the possession of those great business qualities shown in other departments of labor, and successfully fulfilled all the trusts entrusted to his hands.

Mr. Corning also had a part in other important measures, and his name will forever be associated with one of the great improvements of the northwest. He was president of the company to which he was awarded the contract for the construction of the Ste. Marie ship canal, to connect the waters of Lake Superior with the great chain of lakes terminating with Ontario. Associated with him in the enterprise was Mr. J. W. Brooks, then superintendent of the Michigan Central railroad and one of the ablest railroad men in the country. The work, which involved the construction of a canal around the Falls of the River St. Mary, was pushed to a rapid and successful completion and proved an important auxiliary to the commerce of the lakes, aiding largely in the development of the Lake Superior region. It was also to the ample resources and penetrating mind of Mr. Corning that the early completion of the Michigan Central railroad was principally due. This road, one of the most important links in the great line of railways that connects the Atlantic with the Pacific, was undertaken by the state of Michigan, but when completed as far as Kalamazoo was brought to a standstill through lack of means. At this juncture Mr. Corning, in connection with Mr. D. D. Williamson of the Farmer's Trust and Loan company, and his former associate,

Mr. J. W. Brooks, took a transfer of the road and completed it through to Lake Michigan without any unnecessary delay.

Mr. Corning became a large stockholder in this road, and also one of the directors of the company. He was also a director of the Chicago, Burlington & Quincy railroad, of which he was one of the originators. His work in connection with railroads, although largely incidental, was such as to show that had he devoted all his time, energies and capital to that species of labor, he surely would have become one of the great railway kings of America.

Mr. Corning also made his mark in the world of American politics, his advent therein being made in the year 1828, when his fellow-citizens, appreciating his integrity and ability, elected him a member of the board of aldermen, and continued him in this office four consecutive terms. He was then chosen to the mayoralty by the common council, and for four subsequent terms filled this important and responsible office, resigning when his party went out of power in local politics. In 1833 he was elected one of the regents of the university and was subsequently vice-chancellor of the board of regents. He was a delegate to the Democratic National conventions held at Baltimore in 1848 and 1852, at the latter being president of the New York delegation. In 1841 he was elected a member of the state senate, and in 1857 was sent to represent his district in the Thirty-fifth congress of the United States. During this term he rendered important service as a member of the committee on naval

affairs. In 1861 he was again returned to congress, and was reelected the following term, thus serving in the Thirty-seventh and Thirty-eighth or War congresses; and although a lifelong Democrat, he patriotically and earnestly gave his support to the war measures of the Republican administration. The intelligent zeal displayed by him in the Union cause during this eventful period was eminently serviceable, and was frequently acknowledged in the warmest and most grateful manner by President Lincoln. Mr. Corning was a delegate from the state of New York to the Peace convention held in Washington, February, 1861, and acted with Mr. Crittenden, Mr. Guthrie and other gentlemen in favor of making honorable concessions to the south. Other counsels prevailing, Mr. Corning gave the whole weight of his influence to the task of preserving his imperiled country. During the progress of the war, he served upon the important congressional committee of ways and means. The great problem before the country at this period, the solution of which devolved upon this committee, was to provide a circulating medium equal to the financial necessities of the country. Mr. Corning's experience in monetary affairs had not only been extensive but intimate. In 1833 he was elected vice-president of the New York State bank, but retired from this position the following year to accept the presidency of the Albany City bank, which he retained through life. He was, therefore, well acquainted with finance, and brought to the deliberations of the committee of ways and means a mature judgment

and a soundness of views which largely aided in the solution of the difficulties presented.

Mr. Corning resigned his seat in the house at the opening of the second session of the Thirty-eighth congress, determined to withdraw from public life. He was induced, however, to serve the people in the Constitutional convention called for the purpose of framing a new constitution for the state, his legislative experience and tried wisdom rendering him one of the most valuable members of that body. Mr. Corning was a man of vigorous constitution, indomitable will and untiring energy, and whatever he undertook he accomplished, not so much by reason of the power conferred by his great wealth, as by his inherent manliness and natural

force of character, his patient industry and undeviating honesty. His influence was widespread, and to his own state and the great northwest, he may be said to have been a benefactor in the truest and broadest sense of the word. He began life without unusual advantages, and his prosperous career and vast wealth were achieved by his own unaided exertions. He was as noted for his philanthropy and benevolence as for his success in business, and when the end of his life came at Albany, on April 9, 1872, the verdict of all was that the world had been made better by his presence, and that a good and great man had been lost to a community in which he had borne so prominent a part.

THE RISE AND PROGRESS OF A GREAT TRADE CENTER—DULUTH.

THE growth of great trade centers must follow, but cannot precede, the development of the tributary country from which they derive their support. Thus, the New York and Chicago, the Boston, Baltimore and Philadelphia of to-day, would not have been possible fifty years ago. They have been made what they are through the natural advantages of their geographical position, supplemented by the support given them through the progress of the great agricultural and mineral regions penetrated by the railway lines, whose traffic comes to them to be exchanged for

the tonnage received from the commercial pathways of the high seas.

Indeed, the conjunction of these land and water lines, stretching over vast spaces, reaching for the varied products of different and distant lands, and people of diverse wants and pursuits, seems to be essential to the development of commercial cities of the first class. Geographical positions affording commanding natural advantages must be joined to equally important artificial conditions, created and fostered through the intelligence and enterprise of man, in order to secure those

elements of permanent growth which have created the imperial cities that have wielded the scepter of commercial supremacy over large areas and through long periods of time.

This seems to be the law of the development of great trade centers. A careful examination of the location and history of existing centers, with the causes that have built them up, will verify this proposition. It is manifest, therefore, that no mere inland points, depending mainly upon railway transportation, can, in any proper sense, become permanent trade centers. They may be prosperous for a time, through proximity to rich agricultural, lumbering and mining regions joined to the favoritism of discriminating railway rates, but the laws of nature and of trade will, sooner or later, assert their sway, and the true centers will be found at the points where the long lines of land and water traffic converge, and the reciprocal exchanges of products and commodities between distant regions are finally effected.

In the light of these simple yet comprehensive truths, it is not difficult to discern the causes of the rise and progress of the great cities of the world where the exchanges of the world are carried on. New York could by no possibility have been what she is in any spot less favored by nature. The same may be said of Philadelphia, Baltimore, Boston, Buffalo and Chicago. They are the outgrowths of the advantages of their fortunate geographical positions at points where vast systems of exchanges between distant and highly productive communities must necessarily occur, involving a great concentration of population, wealth, enter-

prise and the innumerable activities of civilized life. The westward tide of immigration first flowed along the line south of the great lakes to the rich plains of the central states—Ohio, Indiana, Illinois, Missouri, Kansas and adjacent regions. In its onward sweep, involving the development of the magnificent resources of these regions, the prosperous cities of Buffalo, Cleveland, Toledo, Detroit, Chicago, Omaha and Kansas City arose like magic out of the trackless forest and the virgin prairie. Of this chain of cities Chicago is the miracle of modern trade centers, due to its more commanding geographical position.

A clear understanding of the strategic importance of Duluth and Chicago as commercial centers demands that the geographical relations of the great lakes, near whose headwaters they respectively stand, should be brought into view.

A glance at any correct map of the United States will show that Lake Superior lies along the parallels, and Michigan on the meridians. The two are, therefore, at right angles to each other. Superior, however, extends three hundred miles farther west than Michigan, giving to the tributary territory of the former the resulting advantages of three hundred miles more of deep water navigation westward than the latter possesses. The opposite shores of Lake Superior, for more than half its length bearing to the west by south, converge at Duluth in such a manner as to point like the "finger of destiny" to the southwest, vastly increasing the area of its tributary territory in that direction. If a straight line be drawn uniting the two cities, and this line be

bisected by another, commencing near the eastern end of Lake Superior and extending southwestwardly to the Gulf of California, near the twenty-seventh parallel, this latter line will represent, with geometrical exactness, all points equidistant from Duluth and Chicago respectively. Hence all places north of this line will belong, legitimately, to Duluth's tributary belt. This fact is to-day shaping and controlling the railway development of the country northwest of the line described. All roads in this vast region are now pointing toward Duluth as their ultimate objective, because they thus secure the shortest, and therefore the cheapest, line to deep water navigation.

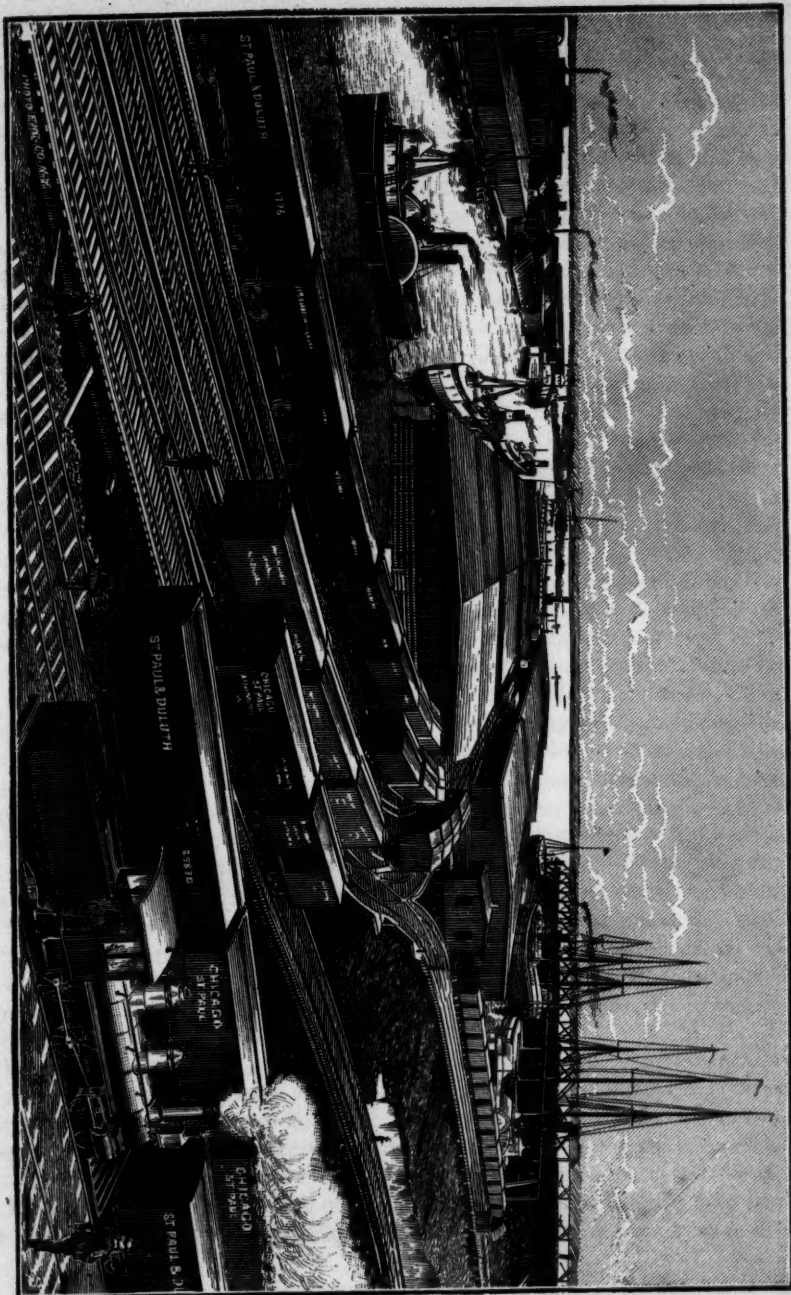
By virtue of the relative positions of the two lakes, moreover, the distance of these two cities from the eastern sea-board by water is practically the same. While a vessel from Chicago is traversing the length of Lake Michigan to the north, the Duluth ship is moving directly on its eastward course, and the two will be substantially together somewhere near the head of Lake Huron, and will thus have the chance of an equal race to Buffalo.

The development of the country between Lake Superior and the Pacific ocean is a comparatively recent movement. It did not fairly commence until after the construction of the Northern Pacific railway was inaugurated. With the progress of that great enterprise and others of a similar character, notably the St. Paul, Minneapolis & Manitoba and the Canadian Pacific systems, the influx of immigration has been immense, and the settlement of the extended area of agricultural and mineral territory, comprising the states of

Minnesota and Oregon, the territories of Dakota, Montana, Idaho and Washington and the provinces of Manitoba and the Canadian northwest, has advanced with a rapidity quite unprecedented; and the commerce of these regions in its eastward flow has sought deep water navigation at Lake Superior on the shortest and most direct line. The development of a new and commanding trade center at Duluth, on the extreme western limit of the chain of lakes, has been and is thus compelled by force of its splendid geographical position, the movement of population along its contiguous parallels, and the opening up of the magnificent grain fields, rich mineral regions and extensive forest areas stretching along the grand portage between the great lake and the Pacific ocean at Puget sound. This wonderful movement has been powerfully promoted by the government improvement of the waterway connecting Lake Superior with the lower lakes along St. Mary's river. It will be still further reinforced by the construction of the new railway lines south of Lake Superior, giving a new and shorter route to the eastern sea-board, and by roads from Manitoba, now projected and being built to the city of Duluth.

The difference in elevation between Lakes Superior and Huron is nearly twenty feet, eighteen and five-tenths feet of which is at St. Mary's falls, where a canal five thousand four hundred feet long has been constructed, with an immense lock, having a lift of eighteen feet, a length of five hundred and fifteen feet, and a depth of sixteen feet, allowing vessels of more than two thousand tons' register to

"WHERE THE GREAT WATERWAY OF THE EAST MEETS THE RAILWAY SYSTEMS OF THE NORTHWEST."





pass freely between the upper and lower levels of the chain of lakes.

Further improvements, on a gigantic scale, have been projected and are now in progress under the authority of the United States government, by which the capacity of the canal and its approaches will be increased to correspond with the rapid growth of the already vast commerce of Lake Superior.

The canal is to be deepened and otherwise perfected; another lock, eight hundred feet long, one hundred feet wide, with twenty-one feet depth of water on the miter sills, is being constructed, and the approach from below is to be shortened by improving Hay Lake channel, thus effecting a saving of eleven miles in distance over the present *detour* through Lake George, in British territory, the navigation of which is impracticable at night. With the completion of these works, which will cost the government about seven million dollars, the capacity of the vessels navigating Lake Superior will be greatly increased, and its commerce will be augmented with the development of the country, beyond all present power of computation.

According to official government statistics, thirty-three per cent. of the vessels and forty per cent. of the tonnage passing through St. Mary's canal into Lake Superior are engaged in the Duluth trade. It is therefore clear that the improvement of the great waterway must exert a powerful influence upon the growth of this new commercial center so rapidly advancing to the front rank of great western cities.

Another factor of prime importance in the future growth of Duluth is the gradual

yet comprehensive improvement of the canals connecting the lower lakes and the river systems leading to the eastern seaboard. These canals are being constantly widened and deepened, to admit of the passage of vessels of greatly increased tonnage, and there is no reasonable doubt that this work of enlargement will go on, until ships drawing twenty feet of water and carrying three to four thousand tons' burden will, within a comparatively few years, be able to float with their immense cargoes from Duluth "unvexed to the sea," and thence to the commercial marts of the old world.

In this work it must be confessed that our Canadian neighbors, with no more than a tithe of our population and resources, are at present in the lead. They have a well-defined system of these waterways, including the Welland canal connecting Lakes Erie and Ontario and others, overcoming the obstructions in the St. Lawrence river. With them it is only a question of further enlargement and increase of capacity when their vessels of the first class will be able to reach the open sea. In our own case we can boast only of the St. Mary's Falls canal, now undergoing enlargement, admitting ships drawing twenty feet of water, and the improvement by dredging to the requisite depth of Hay Lake channel and the St. Clair flats.

There are thus likely to be two rival systems, the Canadian and our own. Our next step will be the construction of a canal around the Falls of Niagara. A project looking to the inauguration of this colossal undertaking has been outlined by a provision in the River and Harbor bill of the

present session, for the survey and estimate of the cost of a "waterway around Niagara falls, of capacity and facilities sufficient to float merchant ships, and ships of war of modern build, drawing twenty feet of water, said waterway to commence in a navigable part of Niagara river, in Niagara county, at or near Tonawanda, New York, and to end in the navigable waters of said river, below said falls, or in navigable waters connected therewith."

The completion of a distinctively American system of communication would further necessitate the enlargement of the canals from Oswego to Syracuse, and thence to the Hudson river, to a capacity sufficient for ships of twenty feet draught. In the absence of this achievement, so important to the continued commercial supremacy of the city of New York, vessels would find their direct pathway from the head of Lake Superior to the ocean *via* the St. Lawrence river, and thence to the leading ports on both sides of the Atlantic, without breaking bulk. This would be virtually equivalent to an extension of an arm of the sea to the heart of the North American continent. With the enormous growth in population and wealth sure to be realized in the future of this great northwest, the opening of this system of waterways is no idle dream of the imagination, but, on the contrary, will surely become an imperative necessity and an accomplished fact.

The natural resources of this region, almost continental in extent, including every variety of agricultural, mineral and other products, have as yet been no more than touched by the magic wand of industrial enterprise. Not five per cent. of

the arable land, including the most wonderful grain belt in the world, and extending far into the Valley of the Saskatchewan and the Canadian northwest for more than a thousand miles, is yet under cultivation, although already being penetrated by railways aiming at the head of Lake Superior as the nearest and most accessible point for reaching deep water navigation. Not one per cent. of our varied and inexhaustible mineral deposits has yet been uncovered. Sandstone, slate, granite, iron, copper, lead, silver and gold, in quantities beyond the power of estimate, exist in the regions bordering upon this great inland sea. Billions of feet of valuable timber still remain standing in the forests that skirt its silent shores.

Nor should the recognition of another fact of great importance in its bearing upon the future of this city be omitted here. As has been aptly expressed, "Duluth is in the pathway of empire." It is on the transcontinental line that connects, by the shortest route, the navigable waters of the great lakes with those of the Pacific ocean. This results not only from the peculiar conformation and indentation of the "arms of the sea" at each extremity, but from the diminution in the length of the degrees of latitude.

In the able report of Edwin F. Johnston, esq., the first engineer-in-chief of the Northern Pacific railway, it was shown that the distance from Puget sound to the principal Atlantic sea-ports was six hundred miles less than from San Francisco to the same points. It was also shown that, owing to the direction of the marine currents between the coasts of eastern Asia and western North America, east-

ward bound vessels were borne in a northerly direction to the shores of Oregon and Washington, whence they were obliged to make their way southward to San Francisco, at a loss of several hundred miles in the voyage. It is thus made to appear that the pathway of commerce from China, Japan and the East Indies is determined by natural conditions, and that it lies along the parallels that embrace the belt traversed by this great railway system and its related transportation lines leading to the eastern seaboard. It is a law of commercial intercourse beyond dispute, that traffic will eventually seek the shortest route between the points of production and distribution. The saving of a few days of time, or even a moderate reduction in the rates of freight and insurance, has often destroyed old trade centers and created new ones. Now, it is clear that these facts bear a close relation to the question of the transportation of goods and merchandise from the East Indies to the commercial marts of both sides of the Atlantic. It is already a common event for cargoes of tea and other East India products, destined to New York, Boston and Philadelphia, to reach these cities by way of Puget sound, the Northern Pacific railway and its eastern connections. While this passage is being revised the following statement, clipped from a daily paper of October 9, furnishes a forcible illustration of the point under consideration: "The sailing vessel *George S. Homer* arrived at Tacoma on Saturday with a cargo of tea, having made the remarkably fast trip of thirty days from Yokohama. The mail which left Yokohama three days later by

steam-ship, with the papers relating to the cargo, arrived in St. Paul on Saturday, after the vessel arrived at Tacoma. The tea will be shipped east over the Northern Pacific."

It is also a fact of no little significance that for two years past the daily tonnage passing through the St. Mary's Falls canal has exceeded that of the Suez canal, from which it would appear that even the East India trade, that great prize for which the commercial nations have for centuries contended, has begun to move along the shortest line. As our facilities for transportation upon lake, land and sea are perfected along this "shortest route," it is not a violent presumption that Duluth will feel the influence of this powerful movement and be carried forward to a corresponding degree of growth and prosperity.

With such possibilities of geographical position, agricultural, timber and mineral products, and with a steadily rising wave of population, composed of hardy, resolute and enterprising men, sweeping over the hills and plains of the northwest, delving in its mines, leveling its forests, cultivating its now waste places and opening a track for the iron horse across the vast areas, what mind can conceive or who can estimate the prodigies of growth that must come to the cities along this wonderful "pathway of empire," and especially to that one which holds the key to the entire situation at the head of the great lake?

Another prominent factor in the problem under discussion is the railway situation. Where deep water navigation ends, there adequate land transportation must

begin. Where the immense tonnage of the lakes seeks the best available point for distribution, there the railway system *must* converge and *will* converge, because railways, as well as steam-ships, are built for the business of transportation, each in their respective spheres. It is primarily the lake trade that has built up Buffalo, Cleveland, Detroit and Chicago. It is the lake business that has drawn the railway systems to these prosperous cities. It is the reciprocal influence of both that has given to these commercial centres their manufacturing plants, their jobbing-houses, their strong financial institutions, their schools, churches, libraries, homes and, indeed, all the adjuncts of their advanced civilization. What, therefore, the steam-ships and the railways have done for the cities named, they will do for Duluth in as much greater measure as her natural advantages and resources exceed theirs. Since, as has been shown, Duluth and Chicago have each its tributary belt by virtue of its closer proximity, so each must have its railway system reaching out into that territory. The Chicago system is already developed in its salient features and is far advanced toward completion. But a few years since it was the ambition of all the railroads in the north-west to reach Chicago. The consequence is that that city is to-day the centre of the most extensive network of railways in the United States. This is simply the result of her commanding position near the head of Lake Michigan, making her the receiving and distributing point of a great extent of agricultural, mining and lumbering territory, lying along and between

Lake Michigan, the Ohio river and the Rocky mountains.

Through the stimulus of its lake and rail transportation Chicago has built up immense manufacturing and jobbing industries, and accumulated a population approximating eight hundred thousand souls. What the joint action of these causes has done for Chicago it will do for Duluth, whose situation and natural advantages are even more commanding than those of the Lake Michigan metropolis. In the wheat trade Duluth now leads Chicago, while for its raw materials, particularly its iron ore and lumber, the latter is receiving its supplies largely from the mines and mills of the Lake Superior region.

The Duluth railway system is as yet but roughly outlined. It embraces three if not four Pacific trunk lines, one of which, the Northern Pacific, with numerous lateral feeders, is completed to Puget sound and Portland, Oregon, and embraces 3,182 miles of completed track. The St. Paul, Minneapolis & Manitoba railway, with its many branches traversing the richest portions of Minnesota, Dakota and Montana, is completed from Duluth to Helena, and is pushing forward to the Pacific with Seattle as its probable objective point. It now operates nearly three thousand miles of road. The Canadian Pacific, in close alliance with the Duluth, South Shore & Atlantic railway, four hundred and nine miles long, has already inaugurated traffic arrangements with Duluth, and within a few weeks will be running through passenger trains from the Zenith City to the eastern sea-board. It is well understood that this powerful corporation

will soon build to a connection with its main line at or near Winnipeg on the west. The indications point to an early connection between Duluth and the Union Pacific railway, at Denver, Colorado, which is nearer the head of Lake Superior than Chicago by at least one hundred and twenty-five miles.

Besides these Pacific lines, built and being built to a connection with Duluth, there are the St. Paul & Duluth railway and branches, 235 miles, connecting the Twin Cities with Duluth; the Duluth & Iron Range, 115 miles, running along the north shore of Lake Superior to Two Harbors, thence across the divide to Lake Vermillion and Ely, through the famous iron regions of Minnesota; the Chicago, St. Paul, Minneapolis & Omaha, and Chicago & Northwestern, allied lines, with 4,606 miles of trackage, connecting Duluth with the cities of Chicago, St. Paul, Minneapolis, Omaha and intermediate points; the Duluth, South Shore & Atlantic, from Duluth to Sault Ste. Marie, with a branch to St. Ignace on the Straits of Mackinaw, where it connects with the New York Central system through the Detroit & Mackinaw; the Wisconsin Central, 507 miles, and the Milwaukee, Lake Shore & Western, 470 miles, the two latter entering Duluth on the Northern Pacific tracks, making a total of nine railways, with an aggregate trackage of 12,514 miles of main line and branches. The new and important roads being built, and others projected and certain to be constructed, are perhaps more than double the number now in actual operation. Of the former, the Duluth, Red Wing & Southern, from the head of the lake to Sioux City, Iowa, and

thence to a connection with the Union Pacific, the Port Arthur, Duluth & Southwestern and the Duluth & Winnipeg are among the most important. The first will open the famous corn belt to the Duluth trade, the second will further develop the iron and silver regions of the north shore, while the latter will form a short line to the wheat fields of the great Valley of the Saskatchewan in the Canadian northwest, giving that country an outlet, by way of Duluth and its dual transportation system, to the markets of the world.

With the rapid growth of population and consequent development of the country embraced in the Lake Superior tributary belt, its railway system must necessarily be expanded until it shall become adequate to all the requirements of the situation. What these requirements are likely to be may best be determined by an estimate of the area, the resources and the wants of the country when it shall reach a density of population equal to some of the older states not equal to it in productive powers.

Massachusetts, for instance, has probably the best developed railway system of any state in the Union. She has a greater ratio of mileage to area than any other commonwealth. Her area is 7,890 miles, her railway mileage, at the close of 1887, was 2,531 miles, and her population, by the census of 1880, was 1,789,035. But Minnesota has more than ten times the area, productive power and natural resources of Massachusetts. Hence, when in the future she shall become as densely populated and as well served with the means of transportation as the latter state, she will have not less than 25,000 miles of railway and 17,000,000 inhabitants. And again,

Dakota has more than twenty times the area and productive capacity of Massachusetts. It may, therefore, be assumed that the future railway mileage and population of these two contiguous communities will surpass those of the Old Bay state to an extent equal at least to the preponderance of their size and resources, and their transportation system must ever continue to gravitate to and focus at the head of navigation on the greatest of the chain of lakes. Were Minnesota and Dakota to day in possession of the same relative population and railway mileage as Massachusetts, they would aggregate not less than 60,000,000 people and 70,000 miles of railway. What effect such a state of facts would have upon the destinies of the Zenith City may well be left for the arithmetical faculty of the reader to determine. If he has a disposition further to forestall the possible events of the coming years, let him carefully calculate the area of the remaining territory whose proximity to Duluth brings it clearly within its tributary domain, give it a density of population and railway mileage relatively equal to those of Massachusetts, and he can revel at will in the stern logic of figures more expressive than those of rhetoric, and of truths, the realization of which will be more strange than the revelations of the wildest dreams of romance.

As a necessary corollary of the comprehensive railway development in progress as outlined and foreshadowed herein, with Duluth for the objective point, it is pertinent to observe that a system of terminals has been laid out within and near the city for the accommodation of such roads as may hereafter seek an

entrance thereto. These terminals will give all the roads access, on cheap and equal terms, to the docks, warehouses, manufacturing establishments and jobbing-houses in the city, furnishing side tracks and free switching privileges to the latter in the mutual exchange of freights destined for shipment, either by rail or lake. Work on the terminal railway will be so far advanced as to make it quite generally available by the opening of the ensuing spring. It provides for elevated tracks from the point of entry into the city to the Union depot for the passenger traffic, and a surface system upon which to conduct the immense freight business between the numerous railways on the one hand, and the docks, manufactories and jobbing-houses on the other. This important enterprise was inaugurated by the public-spirited citizens of Duluth, with a supreme regard to the general welfare of the city as a whole. The franchises granted by the city council and by private citizens, free of cost, while quite liberal in scope, are yet such as carefully to guard the interests of the people against all encroachments of corporate selfishness and greed. This important enterprise is justly regarded as finally settling the question of the future of Duluth as a great railway centre, because it renders communication with the city and throughout its entire business portions both easy and inexpensive, in the face of what have, by many, heretofore been regarded as insurmountable natural obstacles. The superficial notion that because the point of a bold rocky ridge projects itself toward the front near the centre of the city site, there is room for

neither railways nor population, is too absurd to need refutation. The ridge will soon be surmounted by a system of rapid transit, which will cover the plateau with beautiful homes, attractive parks and boulevards, and that which has been regarded as an obstacle to the progress of the city will be universally looked upon as one of its most desirable and enchanting features.

The enumeration of the many and varied natural advantages of Duluth as a commercial metropolis would be radically incomplete without some reference to its capacious and wonderful harbor, for this is its crowning excellence. It embraces a series of bays and river reaches from Minnesota point, which shields it from the storms of the lake, nearly to the foot of the dalles of the St. Louis river, twelve miles distant. The lower bay comprises three square miles of waterway within the established dock lines between Rice's and Minnesota points, all available, when the improvements shall have been completed, for navigation and anchorage to vessels of the largest class. St. Louis bay, between Rice's and Grassy points, forms a secondary harbor for four miles. The whole harbor system affords a perfect refuge against storms, and abundant room for the mercantile marine of the entire chain of lakes. Duluth harbor proper is easily and safely entered from the lake through a ship canal nearly three hundred feet wide and fifteen hundred feet long, running nearly parallel with the north shore. The canal is perfectly straight, in line with the track of vessels coming up the lake, and has a depth of nearly twenty-five feet, which is steadily maintained by the ebb and flow

of the current between the lake and the harbor.

Some conception of the magnitude of the facilities afforded to vessels navigating these waters may be formed from a consideration of the following figures, showing the length of dock lines, kindly furnished by Major J. B. Quinn of the United States engineers, in charge of the harbor improvements:

From the canal to the termination of the legal dock line, near Grassy point, the distance is.....	10	miles.
Length of dock face.....	70.9	miles.
	80.9	miles.
Along Minnesota Point—		
Length of dock line.....	6.27	miles.
Length of dock face.....	35.21	miles.
Total length of dock line and face in Duluth harbor.....	122.38	miles.
Total length of dock line and face in Superior harbor.....	63.36	miles.
Total dock line and face between Minnesota and Grassy points, on both sides of the bay.....	186.24	miles.

One more fact relating to the superb advantages of the dual transportation system of Duluth yet remains to be pointed out, and that is the wonderful perfection of the appliances for the rapid handling of the millions of tons of heavy freight exchanged here. The elevators, coal docks and warehouses are all constructed on the most liberal and comprehensive scale. The machinery for moving freight of every description, and particularly coal and grain, is of the latest and most approved designs known to the carrying trade. The discharge and receipt of heavy cargoes is but the work of hours, and not infrequently of minutes, and the great ships are enabled without delay to unload, reload and depart on the

day of arrival. A few examples of this expeditious work will suffice to illustrate the point under consideration: The schooner *David Dows*, the largest of her kind on the lakes, arrived at Duluth on a certain Friday night. At 7 A. M. of the following day she held a cargo of 2,100 tons of coal at the Ohio Central coal docks. At 7 P. M. she had unloaded, cleaned her hold, taken on board 78,000 bushels of wheat, and was ready to sail. The *Iron Duke* arrived "light" one day at 3 P. M., and at 5 P. M. the vessel cleared with 50,000 bushels of wheat for Buffalo. The steamer *Australian* and consort, a sailing vessel, arrived in like manner at 3:30 P. M. and cleared at 6 P. M., the former with 75,000 bushels of wheat, and the latter with 52,000 bushels, or an aggregate of 127,000 bushels, all being the work of two and a half hours. Such results as these are believed to be without precedent anywhere. They are in keeping with the comprehensive and colossal scale upon which Nature has laid out her work in this wonderful region. In the presence of such facts, human enterprise is compelled, as it were, to devise and execute its plans in harmony with the great types that are ever before it.

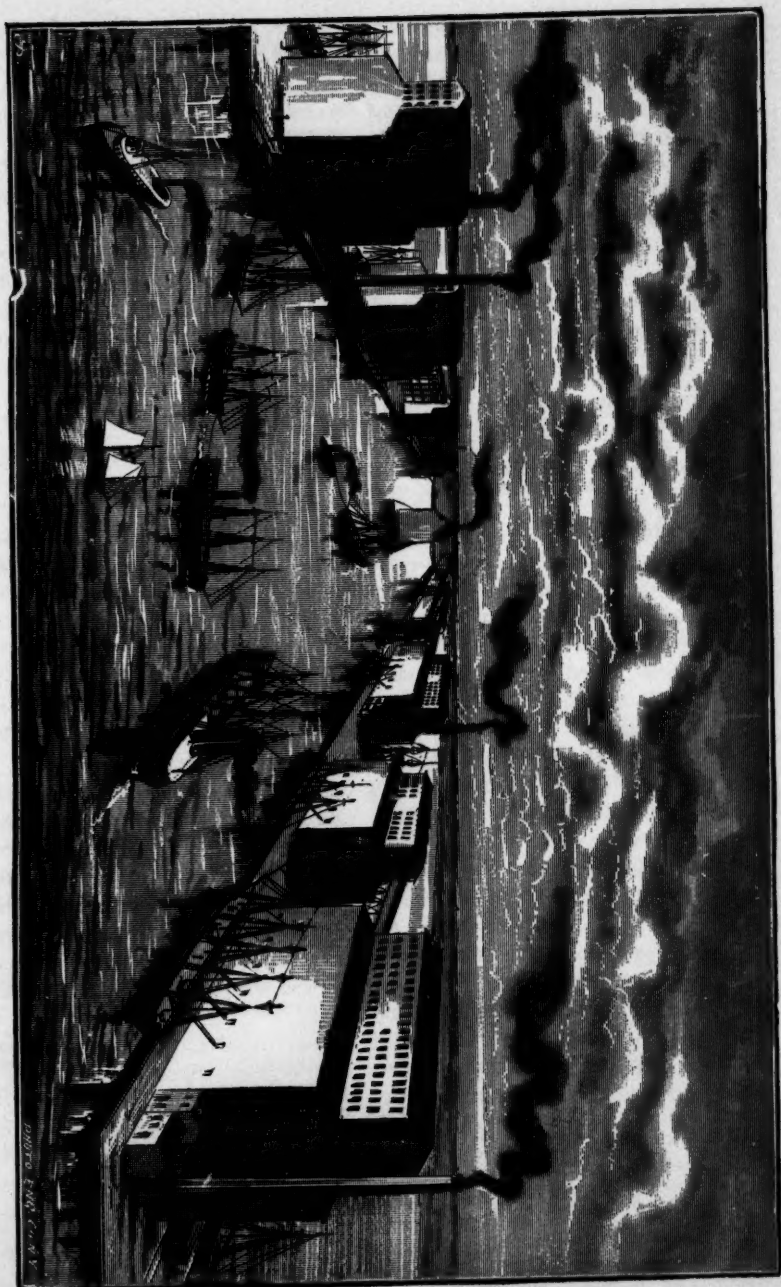
It has been the aim in the preceding discussion to present in as concise yet comprehensive form as possible the natural advantages and conditions that justify the conviction entertained by thoughtful men that Duluth must, within a few years, become one of the great trade centers of the northwest and of the United States. The geographical position, the extent of tributary country, the variety and abundance of

natural resources, the dual transportation system by rail and lake, the capacious harbor, complete terminal facilities, and perfect appliances for the prompt transfer of the enormous tonnage received and distributed here, all combine to justify this conviction, and foreshadow a result that seems as inevitable as any future event can be. But it is neither irrelevant nor improper to reinforce this array of facts with the testimony of that which the past few years have brought to light as the result of the circumstances and conditions herein summarized.

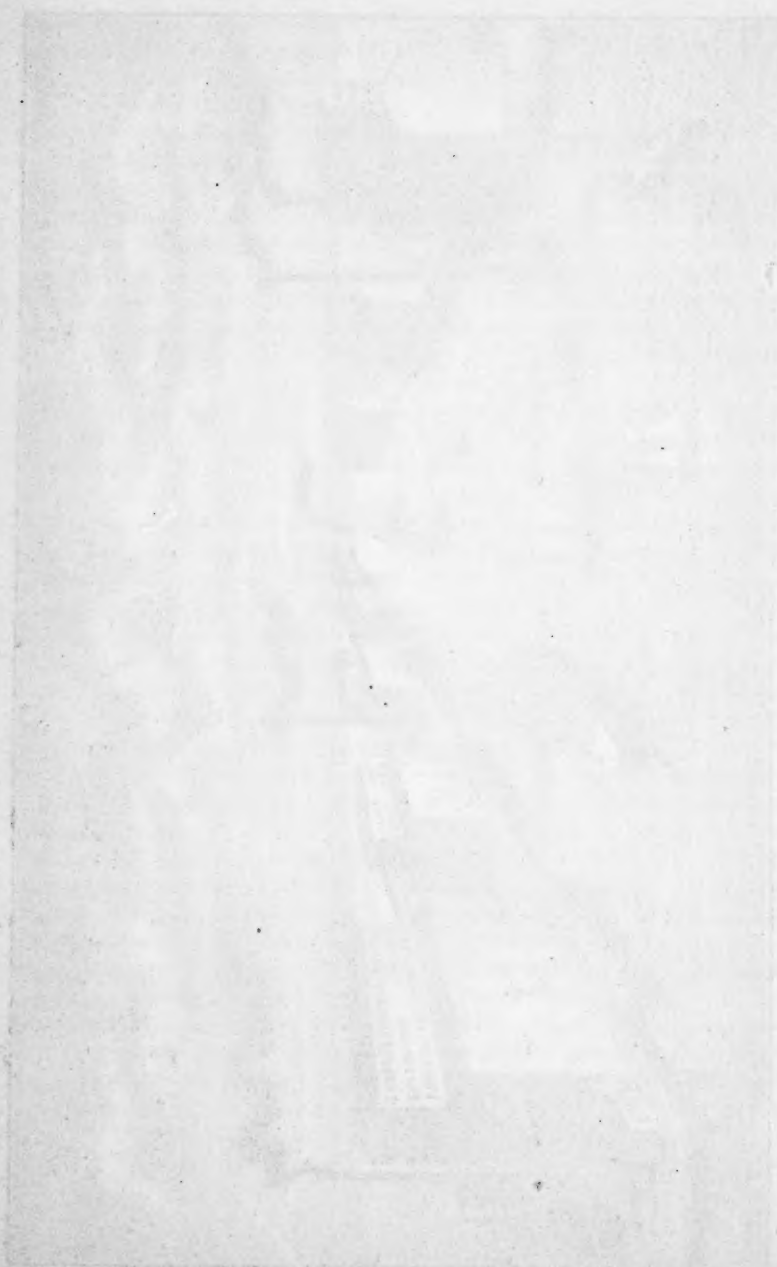
The marvelous growth of Duluth within the last half of the present decade is not an accident. Its causes are as clear as the light of day. They are efficient and permanent, not for a day, but for all time. What they have done they will continue to do, with a steadily increasing momentum.

The census of 1880 gave the then village of Duluth a population of 3,470. The state census of 1885 gave it in round numbers 18,000 people. Estimates based upon carefully collected directory returns in 1886 indicated 22,000 inhabitants, in 1887, 30,000, and during the present year, 37,406, the multiple employed being less than three. Duluth became a city under a charter granted by the legislature in 1887. The next National census, to be taken in 1890, will doubtless substantially verify these estimates.

The growth of commerce and general business has kept even pace, if it has not exceeded, the increase in population. The aggregate receipts and shipments of wheat, combined for the sake of brevity, were as follows for the years indicated:



THE LAKE SUPERIOR ELEVATOR AND UNION IMPROVEMENT AND ELEVATOR COMPANIES' SYSTEMS.



	BUSHEL.
1880.....	3,021,287
1883.....	9,294,711
1884.....	25,274,512
1885.....	28,934,450
1886.....	40,307,663
1887.....	37,114,321

The wheat receipts of Duluth for the past two years have exceeded those of Chicago by from five to six million bushels. The first receipts here were in 1871, and amounted to only 556,783 bushels.

The flour shipments for the past five years show the following results :

	BARRELS.
1883.....	791,800
1884.....	814,300
1885.....	1,155,000
1886.....	1,357,000
1887.....	1,322,715

The increase in the elevator capacity for the same period is exhibited by the subjoined figures.

	BUSHEL.
1883.....	3,160,000
1884.....	9,410,000
1885.....	9,710,000
1886.....	11,150,000
1887.....	19,450,000

In 1885 two elevators, with a total capacity of 1,000,000 bushels, were burned, and 800,000 bushels of wheat were destroyed.

The growth of the coal trade is a significant indication of the increasing importance of Duluth. For the past five years the receipts at this port have been constantly augmenting, as shown below :

	TONS.
1883, the receipts were.....	420,000
1884, " " ".....	572,000
1885, " " ".....	695,000
1886, " " ".....	736,000
1887, " " ".....	1,041,000

For the current year to date the receipts have been greatly in excess of last year and are expected to aggregate not less than 1,250,000 tons.

The increase in the number of arrivals and clearances of vessels, and in the amount of tonnage received and shipped during the years named, presents a striking exhibit of the growth of the commerce of Duluth. Every indication points to the conclusion that the movement for the present year will greatly exceed that of all others.

	ARRIVALS AND CLEARANCES.	TONNAGE.
1885.....	1803.....	1,372,233
1886.....	2180.....	1,694,831
1887.....	2478.....	2,021,789
1888, (partially estimated) 2800.....		2,350,000

Statistics show that the number of vessels passing St. Mary's Falls canal, into and from Lake Superior, is diminishing, while their carrying capacity is increasing. This fact may vary somewhat the partial estimate of the number of arrivals and clearances for the present year. The amount of tonnage, however, is likely to be increased above the figures in the foregoing statement.

Perhaps the best index of the growth and progress of a city is the number of banking institutions and the volume of business transacted by them. Judged by this standard, the progress of Duluth has been phenomenal. According to the report of the secretary of the board of trade for the year 1885, there were but three banks in existence here, and their combined capital was but \$380,000.

During the years stated below the showing is as follows :

	Capital.	Surplus.	Deposits.	Loans.	Circulation.
1886.....	\$ 600,000	\$218,750	\$2,034,281	\$2,471,565	\$ 78,750
1887.....	1,447,937	361,147	3,448,352	3,941,272	127,790
Increase.....	\$ 847,937	\$142,417	\$1,414,071	\$1,469,707	\$ 49,040

The number of banks now in successful operation is ten, four of which are National, five are private and one is organized under the general State law. A fifth National bank will soon be organized with a capital of two hundred thousand or two hundred and fifty thousand dollars. The capital of the State bank has recently been increased to one hundred thousand dollars. These additions will raise the aggregate banking capital of Duluth to nearly two million dollars. The total clearings for the fiscal year ending March 2, 1888, amounted to \$1,142,212,368.48. The average weekly clearances for the present season have been about two million two hundred and fifty thousand dollars. The clearings for the first week in October were over three million one hundred thousand dollars, Duluth ranking about the twentieth or twenty-first in the entire list of cities reporting their clearances. This amount is in excess of all other cities of equal population and is, indeed, greater than that of many others of much greater enumeration.

The expenditures for buildings, mercantile and manufacturing establishments and other improvements during the past two years afford additional proof of the permanence of that new career of progress upon which Duluth has entered. For the year 1886 the cost of these improvements was \$2,451,500, and for 1887 they were \$4,259,381. It is estimated that the expenditures for similar purposes during the current year will mount up to between five

million and six million dollars. The city improvements proper for 1887, on streets, embraced eight miles of grading, six miles of sewage and sidewalk contracts for twenty-three miles. There are now five miles of grading under way, and petitions are in for sixteen miles more, the greater portion of which has already been ordered by the board of public works. More than six miles of sewage have already been ordered for the present season. These improvements, when completed, will have cost nearly one million five hundred thousand dollars, and the expense is incurred only upon petition by the property-holders, and is not done by the city without their consent.

The assessable valuation of the city for the years 1886 and 1887 was as follows:

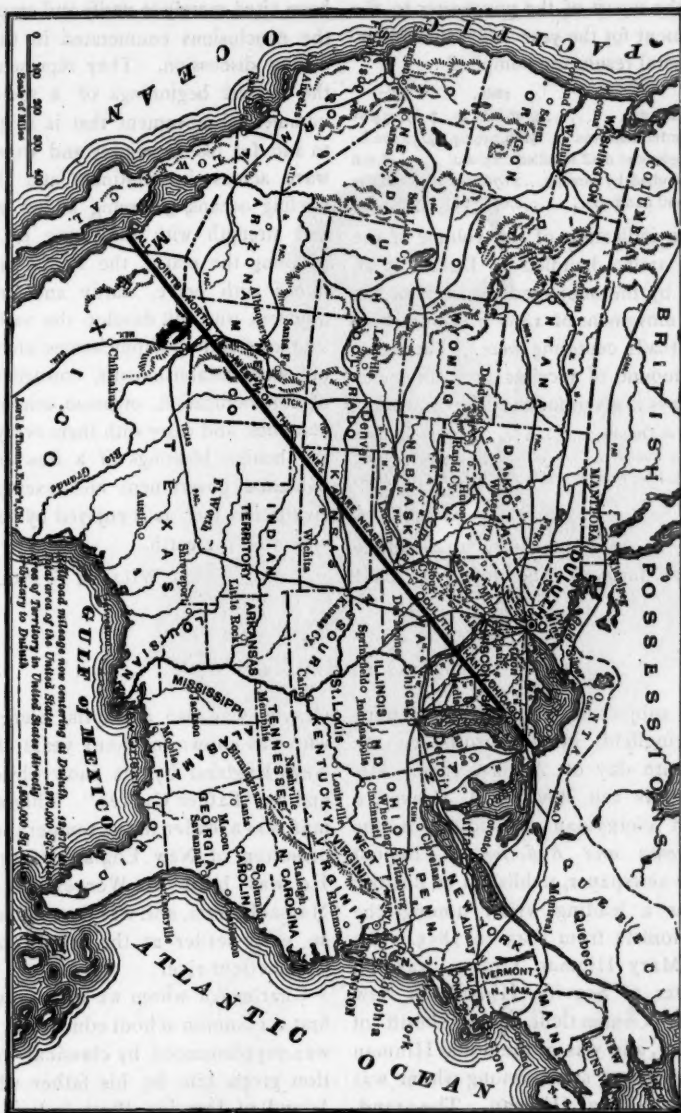
Real estate.....	\$10,978,377
Personal property.....	2,655,858
Total.....	\$13,634,235

For the years 1888 and 1889:

Real estate.....	\$17,374,498
Personal property.....	3,270,378
Total.....	\$20,644,876

Increase, \$7,010,641, or over 51 per cent.

One of the best indices of the growth and prosperity of a city will be found in the annual increase in the volume of its post-office business. The free delivery system was not established in Duluth until the latter part of the year 1885. The comparison can, therefore, be made only for the two preceding years, the figures for the current year not being yet available.



From the report of the postmaster to the department for the year 1887, the following general results are compiled :

	1886.	1887.
Postal receipts.....	\$ 46,887.30..	\$ 67,234.61
Money order business.....	\$186,249.64..	\$250,972.60
Pieces registered mail handled.....	15,282.....	38,608
Pieces handled by carriers.....	2,678,001.....	6,160,275
Pieces mail handled.....	2,678,721.....	5,036,600

Some indication of the volume of the railway traffic handled at Duluth is afforded by the subjoined statistics of the freight movement of 1887 over only three of the roads centering here. The aggregate amount of receipts and shipments both ways is given for the sake of brevity :

St. Paul & Duluth.....	903,392 tons.
Northern Pacific.....	522,777 tons.
Duluth & Iron Range.....	820,185 tons.
Total.....	2,246,354 tons.

But it is unnecessary to multiply statistics further. The foregoing have

been cited merely to verify and emphasize the conclusions enumerated in the preceding discussion. They represent only the modest beginnings of a social and commercial movement that is to pulsate to and fro like a mighty and irresistible wave across the continent and the encircling oceans, gathering added volume and strength with the lapse of years, peopling the plains, the forests and the mines with brave, hardy and resolute pioneers, who will develop the varied resources, build up happy homes, erect busy industrial establishments, construct lines of communication, organize schools and churches, and carry with them everywhere the benign blessings of a free and enlightened government and exemplify a civilization such as is enjoyed by no other nation on the earth.

WILLIAM F. PHELPS.

CHARLES HINMAN GRAVES.

THE subject of this sketch was born in Springfield, Massachusetts, on the fourteenth day of August, 1839. His father was the Rev. H. A. Graves, a Baptist clergyman and editor of the *Watchman and Reflector*, a Baptist weekly newspaper, published in Boston; he was a leading writer among the Abolitionists from 1845 to 1855. His wife, Mary Hinman Graves, was the daughter of Scoville Hinman of New Haven, Connecticut, once sheriff of that city, and was of the noted Hinman family of that state, among whom was Governor-Royal Hinman. The grandfather of Charles, the Rev. Joseph M.

Graves, was also a Baptist clergyman, who was known for many years all over New England by his snow-white hair and as "Father Graves." This worthy man was a leader in the temperance reformation of New England clergymen. He was born in Worcester county, Massachusetts, and was descended from an early settler at the mouth of the Connecticut river.

Charles (of whom we write) received first a common school education, which was supplemented by classical instruction given him by his father when in Island of Jamaica, West Indies, where the family resided four years. His



Mapane of Western History

Harold Graves

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father died in 1855 ; this was the cause of his leaving the Litchfield academy (Connecticut), which, at that date, he was attending, and necessitated his earning his living clerking in stores, principally at West Cambridge, now Arlington, Massachusetts, where in May, 1861, then twenty-one years of age, he enlisted as a private in a company of volunteers raised by Captain Ingalls.

The company which the young man joined was organized a little too late to be included in the quota of the state of Massachusetts, under President Lincoln's first call for three months' men ; as a consequence, the men concluded to go, along with three other companies, to New York city, and attach themselves to, and become a part of, the Fortieth New York regiment of volunteer infantry.

Young Graves was appointed corporal, then sergeant, of his company. He carried a musket through the first battle of Bull Run and during the arduous drilling, under McClellan, of the Army of the Potomac. In November, 1861, two vacancies in office of second lieutenant of his regiment occurring, the colonel, to stimulate the interest of his men in the service, appointed a competitive examination of enlisted men for promotion to those positions. Among about forty competitors Sergeant Graves ranked second, and was rewarded with a commission, on the nineteenth of December, 1861, as second lieutenant, by Horatio Seymour, governor of New York. It was, to use his own words, "the proudest day of his life." The

whole regiment knew the way the commission had been obtained, and were enthusiastic over it. This was the starting-point of the young lieutenant's career on a broader scale than fate had before seemed to promise.

And here we take pleasure in giving the army record of the young man, which, surely, anyone might be proud of. Briefly, it is this : Private Fortieth New York volunteers, June, 1861 ; sergeant, August 14, 1861 ; second lieutenant, December 19, 1861 ; first lieutenant, July 7, 1862 ; captain, December 16, 1862 ; captain and assistant adjutant-general U. S. volunteers, March 3, 1864 ; major and assistant adjutant-general U. S. volunteers, January 15, 1865 (for gallant services in attack on Fort Fisher) ; breveted lieutenant-colonel and colonel volunteers, March 13, 1865, for faithful and efficient services during the war and gallant conduct in the field ; appointed first lieutenant Fourteenth U. S. infantry, November 29, 1865 ; captain Thirty-eighth U. S. infantry, July 28, 1866 ; breveted major U. S. army, March 2, 1867, for gallant and meritorious services in battle of Gettysburg, and lieutenant-colonel U. S. army, for gallant and meritorious service in the assault on Fort Fisher. Resigned December, 1870.

The services of this brave officer were given to his country in the Army of the Potomac, in the Army of the James and in the Fort Fisher expedition. He was in all the battles of those commands ; was severely wounded at Gettysburg, and was three months in a hospital. He served on the staffs of

Generals Philip Kearney, George Stoneman, D. B. Birney and A. H. Terry in various positions; very largely as judge-advocate and inspector, or adjutant-general. He continued in the army after the close of the war, serving mostly as aid and staff officer to General Terry, with considerable experience on the plains of Dakota, Wyoming and Montana until 1870, when, as already noted, he resigned from the service.

After leaving the army, Colonel Graves took up his residence in Duluth. Being of a restless disposition, he was induced to take hold of various kinds of business and projects, all of which have been attended with more or less success—some with decided success. His friends and neighbors recognizing his adaptability for public work, sent him, in 1871, to Washington to help secure the first appropriation for improving the harbor of Duluth; and he has been called on nearly continuously in behalf of his adopted city for public service ever since.

Colonel Graves was senator in the state legislature for the years 1873-4-5-6, where he took a leading position. His principal work was reforming the conduct of the state treasury, and author of the present system and laws governing that department, resulting from the work of an investigating committee composed of Governor Hubbard, Congressman McDonald, R. B. Leangdon and Colonel Graves. These ser-

vices, together with those at many conventions, political and of a business character, have made him well known to the people of Minnesota and the northwest. He is probably the best known of any of the prominent men of Duluth to-day.

Colonel Graves was married May 20, 1873, to Grace Totten, daughter of General Joseph G. Totten, for twenty-five years chief of engineers in the U. S. army. She is a most charming lady, who is devotedly loved by a large circle of friends.

The traits of character possessed by the colonel are marked. He has inherited studious habits and intellectual tastes, which enable him to make up for any defects in early education. In the state senate he was generally taken to be a lawyer by those not informed to the contrary. He has great energy and capacity for organization and execution, with an original mind naturally inventive. He is enthusiastic about his adopted home, and has had much to do with furthering its progress. For years he has been director in the St. Paul & Duluth Railroad company; president of the Union Trust & Elevator company; vice-president and manager Lake Superior Elevator company, and officer and director in many other organizations. He has also been mayor of Duluth.

CONSUL WILLSHIRE BUTTERFIELD.

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CLINTON MARKELL.

In close connection with the efforts of Mr. Munger, in behalf of Duluth, should be mentioned those of his business partner, Clinton Markell. For many years a collaborer with Mr. Munger in plans for the advancement of the city, Mr. Markell is in fact a much earlier resident in the Lake Superior region, and an earlier though not less earnest advocate of Duluth.

Peter Markell, the father of the subject of this sketch, was a native of New York, being born near the city of Rochester. In early life he emigrated to Ohio, and there married Betsey A. Bartholemew, a native of that state. He established his home at Kirtland, where, on the seventeenth day of January, 1832, Clinton Markell was born. As a school-boy Clinton attended the district schools until he was eight, and afterwards, until he was thirteen, the academy at Kirtland. With this brief educational career, at the age of thirteen, he commenced the active duties of life as clerk in the dry-goods house of S. S. & H. Fasset, then one of the largest institutions of the kind in the state. He remained with this firm ten years. In October, 1855, he was married to Kate E. Watrous, daughter of Winthrop Watrous, a resident of Ashtabula. In the spring of the following year the young couple moved to Superior, Wisconsin, where Mr. Markell engaged in mercantile business. Impressed with the idea that the coming city at the head of Lake Superior would be in Minnesota, he joined with J. D. Ray, John I. Post, Dr. A. B. Robbins and Sidney Luce in the purchase of the land now known as the Portland division of Duluth,

which they platted in 1856 as the town of Portland. After spending two years at the head of Lake Superior, Mr. Markell returned to Ohio with his family, and shortly after moved to Meadville, Pennsylvania, in the oil regions, where for several years he was engaged in mercantile business. In the winter of 1869 Mr. Markell spent some time in Washington on business. While there he met Honorable William L. Banning, who was trying to secure the passage of a bill then before congress, granting lands in aid of the Lake Superior & Mississippi railroad. Mr. Markell, when living in Superior, had become acquainted with Mr. Banning, and soon learned his business at the capital. Mr. Markell was receiving many courtesies at the hand of Honorable Ben Wade, then president of the senate and *ex officio* vice-president of the United States, whom Mr. Markell had known in Ohio. Through Mr. Markell, Mr. Banning became acquainted with Senator Wade, whose warm support of the pending measure was no small element in securing its passage. Mr. Markell became highly interested in the project, and in connection with Mr. Banning visited Philadelphia, and he became acquainted with Jay Cook, whose house proposed to place the bonds of the road. In compliment of Mr. Markell's efforts in securing the passage of the bill, Mr. Cook promised that he would notify Mr. Markell by telegraph immediately upon the placing of the bonds. In May of the same year, Mr. Markell received at Ashtabula the promised telegram, and was soon on his

way to Duluth, which has since been his home. The place at this time contained about two hundred people. Mr. Markell joined at once with the others already on the ground in the work of building the city. Since that time he has been closely identified with all the material interests of the city. In the second year of his residence he became its mayor, and afterwards served out the unexpired term of Sidney Luce. He has been several times a member of the common council, and has held other positions of honor and trust. He was one of the founders of the grain trade of Duluth, and has always been connected with its elevator enter-

prises. In 1883, in connection with Mr. Munger, he built the Grand Opera house, the first really substantial building at the head of Lake Superior. He is one of the proprietors of the West Duluth Land company, the Imperial Mill company and the Duluth Iron and Steel works, and other large public enterprises. Mr. Markell has an abiding faith in the destiny of Duluth, and has shown his faith by his works. No man has labored more disinterestedly for Duluth. His family consists of his wife, herein before mentioned, one son, now married, and two daughters. His home is one of the most pleasant in the city.

ROGER S. MUNGER.

The progress of our rapidly-growing western cities is not uninterruptedly forward, as some people seem to believe. Periods of unusual growth are rapidly succeeded by periods of depression, and all cities, no matter how favored, have had their times, often years, of business stagnation. Duluth has certainly been no exception to this rule, but rather an exaggerated illustration of it. The city, however, has been fortunate in numbering among its citizens several men, who, knowing well its advantages and believing fully in its future, have yet had the persistent courage and enthusiasm, in season and out of season, to champion its cause before the outside world. The splendid achievements of to-day are fitting monuments of their untiring and unselfish efforts. Among all these no one is more deservedly prominent than Roger S. Munger.

Mr. Munger is a son of Sherman and Lucretia Benton Munger, natives of Connecticut, and was born at North Madison, in that state, February 25, 1830. Mr. Munger's boyhood was, however, passed in New Haven, to which place the family had removed. He had the benefit of the public schools of that city, and in addition completed a course at the Hopkins Grammar school, preparatory to entering Yale college. He decided, however, not to take the college course, though fully prepared for it, and at the age of twenty-one entered business, having for six years sole charge of a large music store in New Haven. At the end of this time he came west, spent one year in Iowa and then came to St. Paul, where he engaged in the music business with his brother, Russell C. Munger. Mr. Munger was largely instrumental in securing the capital and organizing the company that built the



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R S Munger

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Grand Opera house in St. Paul. In 1869 Mr. Munger came to Duluth, and formed a partnership in lumber business with R. A. Gray, which continued for about six years. In 1872 the firm of Munger, Markell & Company was formed, consisting of Mr. Munger, Clinton Markell, Russell C. Munger, heretofore mentioned, and another brother, Gilbert Munger, a distinguished American artist, now and for several years residing in Paris, France. The firm built the second elevator at the head of Lake Superior, known as Elevator No. 1, which was burned in 1880. After a few years, Russell C. and Gilbert Munger retired, and the firm has since been continued as Munger & Markell.

Mr. Munger has always been closely connected with the grain and elevator business of the city. Under the joint management of himself and Colonel C. H. Graves, the elevators of the Lake Superior Elevator company and the Union Improvement and Elevator company, furnishing storage for twelve and a half million bushels of grain, have been constructed. In 1883 the firm of Munger &

Markell built the Grand Opera house. A pet scheme of Mr. Munger's had long been the building at Duluth of a large flouring-mill, and his hopes in that direction are being realized in the Duluth Imperial mill, now in course of construction, which, when completed, will have a capacity of six thousand barrels of flour per day, the largest of any mill in the world. The Duluth Iron and Steel company and the West Duluth Land company are largely indebted for their success to Mr. Munger's untiring efforts. Scarcely any large public enterprise has in recent years been undertaken in Duluth in which Mr. Munger has not been financially interested, and to the success of which he has not materially contributed. He is a director of the Duluth & Winnipeg Railroad company, and has rendered valuable assistance in securing other railroads.

In 1858 Mr. Munger was married at Vassalboro, Maine, to Miss Olive Gray. They have two daughters. The family residence is pleasantly situated on Piedmont avenue, near Fourth avenue, West Duluth.

WILLIAM FRANKLIN PHELPS.

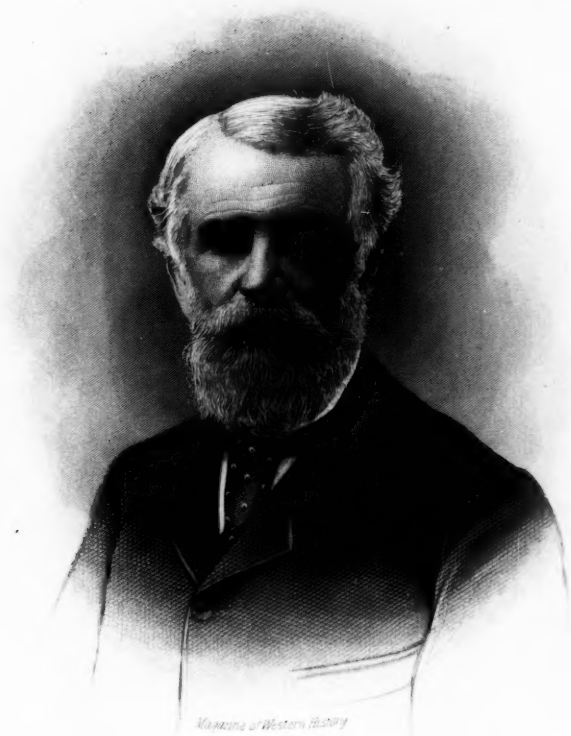
The career of him whose name appears at the beginning of this notice illustrates most forcibly the possibilities that are open in this country to earnest, persevering young men possessing the courage of their convictions and determined to be the architects of their own fortunes. It proves that neither wealth nor social position nor influential friends are essential to the attainment of emi-

nent usefulness, honorable distinction and true success in entering upon the work of life. It shows that if a man's rank among his cotemporaries is to be determined by the amount of useful and beneficent work he has accomplished, then the subject of this sketch has lived a life worth living and made a record that ought to be worthy of the appreciation of his fellow-men.

William F. Phelps was born at Auburn, New York, on the fifteenth of February, 1822. His father, Halsey Phelps, was a native of Sharon, Connecticut, but at the age of four years removed with his parents to central New York, near Auburn. The mother of William was born at Hebron, Washington county, New York. Her maiden name was Lucinda Hitchcock. The parents were both intelligent, industrious and thrifty people, and gave to their nine children the best opportunities for education that the common schools of that day were able to afford. The father owned a valuable farm one mile north of the city of Auburn, upon which were valuable quarries of blue and gray limestone. From these quarries the materials for many of the most solid and tasteful buildings in that beautiful city were constructed.

Of the nine children, William was the fifth, there being four older and four younger than himself. In early life his health seemed delicate and precarious, and for this reason it was deemed best that he should be prepared for some sedentary pursuit. Accordingly he was allowed special school privileges. When about fourteen years of age he was sent to the Auburn High school, an excellent private institution, in charge of an able and skillful instructor from Boston, by the name of Albert Metcalf. The influence of this school upon the life and character of the young student was most marked and beneficent. But the health of Mr. Metcalf failing under his arduous labors, the school was discontinued and William was transferred to

the Auburn academy, in which he spent several years. According to the custom of those days, a teachers' class was formed during four months of summer and autumn, the aim of which was to prepare candidates for work in the country schools. Mr. Phelps was a member of one of these classes, and it was through the influence of the special instruction given here that he was led to look upon teaching as at least a temporary pursuit. His father favoring the idea, at the age of sixteen he was master of his first school in a rough country district, about eight miles north of Auburn. Here, in a small, dilapidated school-house, on the corner where four roads met, he found himself the instructor of sixty pupils, of all sorts and conditions, from four to twenty-four years of age. The room was furnished in the style then common, with high forms along the walls of three sides, with benches to correspond, while in the centre, on each side of the stove, seats were furnished for the small pupils, made of slabs supported by round legs protruding above the surface, and so high that the little ones literally sat up and stood down, being higher when sitting than when on their feet. The experience of the young teacher here was a rough one, but nevertheless he carried through his engagement successfully, with his characteristic energy and determination, to the end of the term of four and a half months. During the succeeding four years his time alternated between teaching in the winter and pursuing his studies at the academy in the summer. As a teacher he soon took a



William F. Phelps

1830-1890

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high rank, according to the testimony of the county superintendent, being considered a good disciplinarian and earnest, enthusiastic and skillful in his methods of work.

While thus occupied, teaching in the winter and studying in the summer, the State Normal school was established at Albany by an act of the legislature, passed at the session of 1843-4. This was only the third of its kind in the United States. Having previously read the glowing accounts of the government training-schools in Europe, and particularly in Germany, as given by Horace Mann of Massachusetts, in his famous 'Seventh Annual Report,' Mr. Phelps was fired with the ambition to enjoy the advantages which he was persuaded would be afforded by the great state of New York in making a similar provision for the preparation of teachers. Making known his desire to the county superintendent of schools, whose confidence he possessed to an eminent degree, his name was presented to the county board of supervisors, with strong recommendations, as one of the three representatives to which the county of Cayuga was entitled at this school. These representatives from the several counties were apportioned according to the number of members each possessed in the house of assembly of the state legislature.

At the head of the normal school was David P. Page of Massachusetts, who, as principal, won a National fame during the three years of his administration, at the end of which he was stricken down with a malady that terminated fatally

January 1, 1848. Within less than a year from the opening of the school, Mr. Phelps was selected by Principal Page to organize a new department, known as the experimental or practicing school, composed of children, and designed to afford the student teachers of the advanced department an opportunity to gain experience in their chosen calling, under the supervision and criticism of an expert in the art. Such a task was one of extreme difficulty. To preserve the discipline and continuity of instruction of a school in which the teachers were to change each week was an undertaking of no easy character. But the work was accomplished, and at the end of four weeks Mr. Phelps returned to his duties as a student, and was succeeded by another, who was delegated to fill the position after an observation of one week. But these frequent changes soon led to utter confusion and inefficiency in the management, while the instruction itself proved to be extremely disconnected, illogical and unsatisfactory. Hence it soon became apparent that the head of the new department must be not only permanent but possessed of rare skill and executive ability in order to preserve the discipline, unify the instruction and at the same time drill the tyros and temporary teachers to a harmonious and efficient system of work.

This position, so difficult and yet so useful and important, Mr. Phelps was urgently solicited to accept. After much hesitation he at length reluctantly consented to do so, and filled it most acceptably for about eight years, during

which period several hundred cadet teachers passed under his supervision, criticism and instruction. This was a department whose influence was universally regarded as the most practical and helpful of all in fitting the teachers for their future calling. It was a kind of school laboratory, where educational experiments were tried, principles and methods were tested, and rules of practice deduced of lasting and inestimable value. Under such a *regime*, teaching becomes a rational art, based upon exact science, and prepares the practitioner to do his work with a degree of confidence and success that imparts to him a perpetual inspiration. While filling this useful position, Mr. Phelps was honored with the degree of master of arts by the authorities of Union college, Schenectady, New York, then under the presidency of the celebrated Dr. Nott. After a service of nearly eight years here, during which his health became seriously impaired, Mr. Phelps resigned, and for two years, 1853 and 1854, was engaged in traveling and in the pursuits of business, for both of which he had a strong attachment.

The legislature of New Jersey, at the session of 1855, passed an act providing for a State Normal school at Trenton, and appropriating the sum of ten thousand dollars annually, for a term of five years, for its maintenance. In July following, Mr. Phelps was unanimously elected principal of the institution by the board of trustees and continued to hold that office nine years. Under his vigorous and efficient administration the

school was not only eminently successful *per se*, but it exerted a powerful influence upon the entire common school system of the state, every county of which was visited many times, and great popular interest was everywhere awakened in the cause of education. He aided in the management of the teachers' institutes and delivered lectures at all the prominent points in the state. Under his advice and coöperation the Farnum Preparatory school was established at Beverly, as an adjunct to the State institution, and placed under his supervision. This school was endowed by a public-spirited citizen, Mr. Paul Farnum, who not only erected the building at his own cost and presented it to the state, but added the sum of twenty thousand dollars, the income of which was to be applied perpetually toward its support, the state contributing a like amount.

In 1856 a National Association of Normal instructors was formed for the promotion of the interests of this class of special schools, and at the first meeting, held at Worcester, Massachusetts, Principal Phelps was elected president, to which office he was reëlected successively for five years, and until its consolidation with the National Educational association, of which body it is still an active and efficient department. While in 1856 there were but eight or ten teachers' seminaries in the United States, yet, largely through the efficient agency of this association, the number has been increased to one hundred and fifty or more, and they now exist in

nearly every state of the Union, being recognized as indispensable to a complete system of popular education.

The prominence which the subject of this sketch had acquired as a leader in the normal school and general educational movement of the country gave him a reputation which is more than National. His reports as principal of the New Jersey Normal school, his writings and public addresses, were thorough and exhaustive and attracted the attention of prominent educators throughout the United States, the Canadian provinces and Europe. His first annual report discussed, in considerable detail, the history, organization, methods and results of these special schools, from the date of their origin to the time of its publication.

In 1864 he received an unexpected and urgent invitation to the post of duty in the great northwest. The state of Minnesota had, by an act of its legislature in 1860, made provision for a system of normal schools, the initial institution having been located at Winona during that year. But owing to certain local difficulties and to the embarrassment of the state finances, growing out of the War for the Union, the school was closed after a fitful existence of less than two years, the support of the state government having been withdrawn. But through the earnest efforts of its friends in the legislature of 1864, a moderate appropriation was secured and the system permanently inaugurated. The means thus furnished were entirely inadequate and the outlook was anything but encouraging. But Mr.

Phelps responded favorably to the call, and reached Winona in September of the same year, while the great Rebellion was still in progress. He at once applied himself, with his accustomed vigor, to the arduous task before him. No buildings had been provided, only a meager financial support by the state could be relied upon, while the public confidence, impaired by the previous failure, was at ebb-tide. A few weeks of earnest and well-directed effort, however, served materially to change the aspect of affairs. A building, temporarily fitted up, was secured, additional financial support was provided for through the liberality of public-spirited citizens, and the modest beginnings were made by the first of November following. For the next four months the principal was the only teacher in a school of more than forty students, composed of ambitious young ladies and gentlemen, aspiring to the honors and emoluments of the pedagogical office.

Subsequently, and during each successive year, the quarters were enlarged, talented assistants were selected, departments of observation and practice were added, an able instructor of vocal music was employed, and an interest was created which soon began to pervade the community, both near and remote. Semi-annual examinations, exhibiting to the public the most advanced and progressive methods of instruction, were attended by prominent citizens and school officers from all parts of the state, and through these agencies the new system secured the general, popular favor. Thus the prin-

ciples and methods of the so-called "new education," which ten years later gave to the schools of Quincy, Massachusetts, their notoriety, were in operation here long before the Quincy movement was begun. The impetus thus given to the cause of education in Minnesota, and the hopes inspired by the aggressive policy of this institution, soon crowded its seats with eager students, and made the demand for larger, better and more liberal accommodations imperative. Hence plans for a permanent and costly building were commenced in the early part of 1867. These plans were designed by the principal, and executed by one of the most experienced architects in the northwest, and the structure was and is regarded to-day as one of the most convenient and imposing of its kind in the northwest, if not in the whole country.

The legislature of Minnesota provided in the original act for three normal schools, located respectively at Winona, Mankato and St. Cloud. The former, being the first of the series, was in a measure the model for the entire system, and by the enthusiasm it created hastened the demand for the organization of the others. The board of directors relied largely upon the counsel and advice of Mr. Phelps in the organization and equipment of the other branches of the system. His hand was seen and his influence felt in all the work committed to the board, and during the protracted struggle for the maintenance of the schools. They are now universally admitted to be one of

the most important factors in the agencies and appliances for promoting education among the people, and their high standing to-day is primarily the result of the judicious and earnest work that was done in their defense during the earlier period of their history.

At the annual meeting of the National Educational association held at Minneapolis in 1875, Mr. Phelps was elected its president for the centennial of 1876, and presided over its deliberations at Baltimore in July of the latter year. It was a strong and representative gathering, and was made especially notable by the presence of many distinguished foreign representatives, who were in attendance at the Philadelphia Centennial exposition. Eminent educators from Japan, Brazil, the Argentine Republic, England, Austria, Germany, the Scandinavian and other European nations added weight and dignity to the deliberations of that meeting. A few days subsequently an International Educational conference was held at the Centennial buildings; Sir Redmond Barry of Australia was elected president and Professor Phelps vice-president of the conference. Owing to the unexpected absence of Sir Redmond, however, the vice-president was acting president throughout the entire session of two days. Representatives were present from most of the states of the Union, but from all the leading nations of Europe and America. This was the first gathering of the kind ever held. Its proceedings were most interesting and important, and were

published by the United States Bureau of Education, making a document of more than a hundred pages.

In 1875 Mr. Phelps published his 'Teachers' Handbook,' a volume of nearly four hundred pages. This book embodied the results of a wide professional observation and experience, and was especially designed to meet the wants of country teachers and of county institutes, which are agencies for their special preparation. This work met with a very favorable reception by the press and the profession, and still enjoys a wide circulation, particularly in the southern states.

The office of principal of the State Normal school at Winona was held by Mr. Phelps for twelve years, from 1864 to 1876 inclusive. It is but simple justice to state that, during this long period of his administration, that institution was brought into the foremost rank of seminaries of its class in the United States. It honestly earned a National reputation, and still maintains it, largely through the character it then acquired. Its graduates are to be found doing efficient, skillful, earnest service in all parts of the country. Many of them, through his agency, both direct and indirect, are at the head of similar schools in the Argentine Republic, where their services are highly appreciated and generously rewarded by the government of that country.

While at the International conference in Philadelphia in July, 1876, Mr. Phelps received by telegraph, from the regents of the Wisconsin Normal schools, a tender of the Presidency of the insti-

tution at Whitewater in that state. At a subsequent conference with these officials at Madison, a preliminary understanding was reached, by which a conditional acceptance was promised. The contingency implied in this agreement was the consent of the authorities of Minnesota, it not being advisable to take a step which would embarrass the work he had labored so long to build up in the sister state. This obstacle having been removed, he resigned his trust at Winona and accepted the tender of the Wisconsin regents, entering upon his new duties at Whitewater in the latter part of August. After holding this position two years, and finding the conditions attending the administration of the school unsatisfactory and distasteful, the buildings and equipment limited and inadequate, and his efforts restricted and embarrassed, he determined to return to the city and state to which he had become strongly attached through the pleasant associations of twelve years. While at Whitewater he was invited to accept the editorship-in-chief of the *Chicago Educational Weekly*, to which he contributed until his return to Winona.

Soon after his return to Minnesota he was offered and accepted the office of superintendent of the city schools of Winona, which he held altogether for four years. As a large number of the teachers in these schools had been his pupils, having graduated from the normal school, the duties of the office were very congenial. Through the vigorous measures and earnest work inaugurated here, the standard of discipline and in-

struction was raised, many needed reforms were introduced, and the schools received a strong impulse in the direction of the more modern ideas of education.

Drawing and manual training were made a part of the daily instruction. The zeal of the pupils, teachers and citizens was thus greatly quickened. At the close of the last year, a public exposition of the products of the new system was held. Specimens of industrial drawing, designing, hand work in clay, wood-cutting and carving, designs in paper and other materials, surprising in quantity, quality and variety, were displayed, filling a hall forty-eight by sixty feet in dimensions, and presenting one of the most attractive and beautiful spectacles ever offered to the admiring gaze of the people. The exhibit was visited by several thousand citizens, and was held open for five days. It was a conclusive answer to the question whether manual training can be successfully made a part of the usual school curriculum. It proved that, as an intellectual discipline, it more than justifies the labor, time and expense of the effort involved. By special request this exhibit was repeated a few weeks later at the fair of the Southern Minnesota Agricultural society, and it was conceded to have been the most attractive feature of the display.

The literary labors of Mr. Phelps, beginning at an early age, have been a conspicuous feature of his life work. In 1851 he won the prize of a gold medal offered annually, for the best essay, by the Young Men's association of the city

of Albany, one of the foremost organizations of the kind in the country. Previous to this he was associate editor of the *Common School Journal* of the state of New York. His writings for the press and for some of the prominent periodicals have been voluminous. He was a contributor to 'Johnson's Universal Cyclopedia,' published originally in 1873 and thoroughly revised in 1887. He accompanied the Yellowstone expedition in 1883, which located the route of the Northern Pacific railway, from the Missouri river westward, and on his return wrote a series of articles descriptive of the country and incidents of the trip. In 1875 his 'Teachers' Handbook' appeared, as before noted. In 1878 he prepared a series of six *brochures* at the request of Dr. J. H. Vincent, for the use of the Teachers' Retreat of the Chautauqua Literary and Scientific circle, which were published by the Methodist Book Concern. His pen is still active and vigorous in the preparation of commercial reports and contributions to the press on financial, statistical and business topics. As an extemporary speaker he is reputed to be terse, fluent and forcible, and holds the attention of his audiences without effort. His reports, addresses and miscellaneous writings alone, if collected and published, would fill many volumes. At the Paris Universal exposition in 1878, he was awarded the "diploma of the silver medal" as an educational *collaborateur*, in recognition of his eminent services in that field. The report of the commissioners of the French republic, at the centennial ex-

position of 1876, to the government of that country, contains copious extracts from his works, with strong testimonials of their theoretical and practical value.

There is one feature in the life work of this gentleman that is worthy of special mention on account of its bearing upon his later and present pursuits. While as an educator and a writer he has ever been devoted to his special calling, yet he has never allowed himself to forget or neglect his relations and duties in connection with the general material welfare of the country and the progress of the community in which his lot has been cast. He has sympathized and associated more or less with business men and business interests. He has sought to do his part in promoting all public improvements. He has for many years taken an active part in the opening up and improvement of the great National waterways, on account of the bearings of this question upon cheap transportation. He was a delegate from the city of Winona to the Mississippi River convention at St. Louis in 1882, and at Washington in 1884, and a delegate-at-large, appointed by the governor of Minnesota, to the Upper Mississippi River convention at St. Paul in 1885. He was a member of the permanent executive committee on the Mississippi river, and as such, in connection with the other gentlemen of the committee, he appeared before and addressed the appropriate committees of the senate and house of representatives at Washington in behalf of larger appropriations for the improvement of the navigable waters of the west. Indeed, there

seems to have been no phase or feature of public improvements or material advancement that he has not studied, favored and helped to the full extent of his influence and services.

The cities of Winona, St. Paul and Duluth will ever have good cause to remember and appreciate his labors in their behalf.

For more than six years he was the secretary and chief executive officer of the Winona board of trade. He was one of the founders of that organization, and it was through his untiring and persistent efforts, in association with other public-spirited citizens, that Winona has advanced so rapidly within the past eight years as to have largely increased the number of her productive industries and doubled the aggregate of her population.

These efforts in behalf of Winona's advancement attracted the attention of the press and citizens of St. Paul. That city having become prominent as a centre of railway development and of the jobbing trade, also became ambitious to build up her manufactures. Her chamber of commerce, composed of the most wealthy, public-spirited and enterprising citizens, in the latter part of 1885 sought his services, and through a committee tendered the office of secretary to Mr. Phelps. After some hesitation, in view of a step which seemed to be in the direction of an entire change in the course of his life, he finally accepted this position so flatteringly and honorably tendered, and on the first of January, 1886, entered upon the discharge of his duties. By special

arrangement he had previously met the citizens of St. Paul at the chamber of commerce and delivered an address, in which he set forth his views as to the character and methods of the work which lay before him.

These views were received not only with unanimous approval but with hearty enthusiasm. He was made a director of the chamber, and had accorded him special privileges on the floor at its meetings.

One of the first enterprises to which his attention was given was that of securing the great stock-yards and meat-packing industry which constitutes so important a factor in the growth of the capital city. Through his judicious management many and various industrial establishments were attracted to St. Paul, and the amount of capital added to its manufacturing interests during the year 1886 was upwards of four million dollars.

Prior to the close of the first year of his services in St. Paul, the intelligent and progressive citizens of Duluth, having had their attention attracted to his work in the former city, made overtures, through the directors of the chamber of commerce of the latter, to the St. Paul secretary, to accept the tender of a similar position in the Zenith City. The turn in affairs was altogether unexpected, and the proposition was received with surprise and was considered with hesitation and doubt. The position and duties of the St. Paul chamber were pleasant and agreeable, but the Duluth officials were not to be defeated in the accomplishment of their purpose. Their

offers were so liberal, and the prospect for increased usefulness in promoting the growth of that new commercial centre, so rapidly rising to prominence at the head of Lake Superior, was so promising, that he did not feel at liberty to disregard them. Accordingly an engagement was made at Duluth for a term of three years from the first of February, 1887. Entering on his work with his accustomed zeal and energy, he soon found ample scope for the exercise of his talents and experience. One of his first acts was to take steps for the calling of a great waterway convention, at Sault Ste. Marie, to consider the condition and needs of the canal at that point connecting Superior with the lower lakes.

In the Ste. Marie river is a fall of more than eighteen feet within the space of one mile. To overcome this difficulty a canal and lock had been constructed by the state of Michigan in the year 1855, but owing to the growth of the commerce of Lake Superior they had become totally inadequate to its wants. This growth was gathering added force each year, and it was only a question of a few years when a blockade must occur at these works. The United States government had constructed a lock of still greater capacity, which was completed in 1880, but so rapid had been the increase in the tonnage of the vessels navigating these waters that the appropriations had been made for a still larger lock sufficient to accommodate all future needs. But these had been so meager and irregular that the work was greatly retarded, and

fifty years must elapse, according to the calculations of the engineers, before the lock would be completed. The purpose of the convention, then, was to take steps to urge upon the government larger and more liberal appropriations for hastening forward the improvements.

All the details and preparations for the convention were worked up, and the convention was virtually fully prepared to do its work before it met, thanks to the organizing power and executive ability of its organizer. It assembled on the day appointed, commenced its proceedings at ten o'clock A. M., and at five P. M. had adjourned. Mr. Phelps was chosen temporary chairman and subsequently permanent secretary of the convention, and was elected a member of the executive committee. As a representative of that committee, he, with the chairman, appeared before the committees on commerce and rivers and harbors in congress, and presented the claims of this great work to the liberality of that body. The result was that provision was made in the River and Harbor bill of 1888 for an appropriation of one million five hundred thousand dollars for the more rapid prosecution of the improvements on the Ste. Marie Falls canal and Hay Lake channel. The secretary was intrusted with the entire duty and responsibility of the compilation, publication and distribution of its proceedings, and was allowed the largest liberty in supplementing these proceedings with whatever would throw light upon the important questions involved in this truly National work. Five thousand copies

were published and distributed. His measures, in coöperation with the directors of the chamber of commerce and the public-spirited citizens of Duluth, have accomplished much toward increasing the value of her mercantile and manufacturing interests, and in giving prominence to the city among the great commercial centers of the country. He has found that his experience as a leader of the young was of great value in aiding him to lead the builders of cities. He has unquestionably in this new line of duties made a profound impression upon the business interests of the great northwest. He is still in vigorous health, with energies and working powers unimpaired, and there seems to be no reason why his years of usefulness in his new field may not be extended for a yet indefinite period.

Mr. Phelps was married in the year 1852 to Caroline C. Livingston, widow of Crawford Livingston, founder of the American Express company. Her maiden name was Caroline C. Chapman. She was a native of the city of Albany. Mrs. Phelps is still living, although in somewhat impaired health. They have one child, a daughter, who is also married, and a granddaughter now seven years of age. His domestic life has ever been a pleasant and happy one, and it is venturing nothing to say that the thousands of persons of both sexes whom he has labored so long to benefit and bless, will indulge the earnest hope that he may be spared for many years in the service of the great northwest, whose varied interests he has striven so long and so successfully to promote.

CONSUL WILLSHIRE BUTTERFIELD.

NANTUCKET AND THE WHALE-FISHERS.

THE area of Nantucket is not great nor are her claims to distinction spread over a wide and ambitious field, yet in one regard she has made a history of which the whole Nation may be proud, and caused her name to be known and respected for hardihood and courage wherever the ocean flows or the wild sea winds blow. From the same reason that England became a maritime nation, the little island off the New England coast produced a race of sailors and fishermen; for babes born within sight of the dancing waves and where the roar of the surf and the storm are a cradle lullaby, do not need great incentives to lead them out upon the waters when grown to man's estate, and are seldom content to spend all their years upon the land. From the beginning of the white man's adventures upon this side of the Atlantic, Nantucket and ships and fishermen and the whaler have been as parts of one great whole, and the history of the one could hardly be found without some inclusion of all the rest.

The first whaling expedition in which Nantucket had a part, so far as the history shows, "was undertaken," as Macy, in his history of the island, tells us, "by some of the original purchasers of the island, the circumstances of which are handed down by tradition and are as follows: A whale, of the kind called 'scragg,' came into the harbor and continued there three days. This excited the curiosity of the people and led them to devise measures to pre-

vent his return out of the harbor. They accordingly invented and caused to be wrought for them a harpoon, with which they attacked and killed the whale. This first success encouraged them to undertake whaling as a permanent business, whales being at that time numerous in the vicinity of the shores."

The next point of history upon which we come in this relation* occurs in 1672, in which year the town of Nantucket and one James Loper entered into an agreement of which the following is the purport: Loper "doth Ingage to carry on a Designe of Whale Catching on the Island of Nantucket; that is to say James Ingages to be a third in all Respects, and som of the Town Ingages also to carry on the other two thirds with him in a like manner—the town doth also consent that first one company shall begin, and afterwards the rest of the freeholders or any of them have Liberty to set up another Company, provided they make a tender to those freeholders that have no share in the first company, and if any refuse the rest may go on themselves, and the town doth ingage that no other Company shall be allowed thereafter; also, whoever kill any whales, of the Company, or Companies aforesaid, they are to pay

* The writer is under obligation for many of the facts in this paper to a comprehensive 'History of the American Whale-Fishery, From its Earliest Inception to the Year 1876,' by Alexander Starbuck, and published in the report of the United States commission of fish and fisheries for 1876.

to the Town for every such whale five shillings, and for the Incoragement of the said James Loper the Town doth grant him ten acres of Land in sume Convenient place that he may chuse in (Wood Land Except) and also liberty for the commonage of three cows and Twenty sheep and one horse with the necessary wood and water for his use, on Conditions that he follow the trade of whalling on this Island two years, in all seasons thereof, beginning the first of March next Insuing; also he is to build upon his Land, and when he leaves Inhabiting upon this Island he is first to offer his Land to the Town at a valuable price, and if the Town do not buy it he may sell it to whom he please; the commonage is granted only for the time of his staying here." The best authorities are of the opinion that Loper never went to Nantucket, nor assumed any rights or responsibilities under this grant. At the same town meeting at which the above document was passed upon, a grant was also made to one John Savidge, upon condition that he made his residence upon the island for three years, and also that he should "follow his trade of cooper upon the island, as the Town or whale Company have need to employ him." Savidge accepted and made his home upon the island.

From the date last named, 1672, until 1690 there is little light cast upon this great industry of the island, a tradition remaining that in the year last named "several persons were standing upon what was afterwards known as Folly House Hill," when one of them, observing the whales at play out in the

sea, pointed to them and prophetically said, "There is a green pasture where our children's grandchildren will go for bread." In the same year, as the people of Nantucket discovered that their neighbors of Cape Cod had made greater proficiency than themselves in the "art of whale catching," they sent for Ichabod Paddock, one of the Cape Cod whale-fishers, who removed to the island and instructed its people how to best kill the whales and obtain their oil.

In the opening of the eighteenth century, the town of Sherburne, then so-called, but now known as Nantucket, assumed great importance as a whaling port, the people having, it appears, made rapid advance as pupils under the master imported from Cape Cod. Whales spouted and spouted about in great abundance, and short voyages were required for their capture. "The south side of the island," one authority informs us, "was divided into four equal parts, and each part was assigned to a company of six, which, though thus separated, still carried on their business in common. In the middle of this distance they erected a mast, provided with a sufficient number of rounds, and near it they built a temporary hut, where five of the associates lived, whilst the sixth from his high station carefully looked toward the sea, in order to observe the spouting of the whales." When he gave the signal, the boats would be swiftly lowered and filled with men, and the chase commenced. When the capture was made, the whale was towed ashore and cut up, and made to yield its store of oily riches. The men of Nantucket soon became as expert as any in the land, and the

industry grew rapidly in size and importance. The first sperm-whale taken by them was captured by Christopher Hussey, in 1712, and was the means of effecting a radical change in the method of conducting the business. "He was cruising," says Macy in his history of the island, "near the shore for right-whales, and was blown off some distance from the land by a strong northerly wind, where he fell in with a school of that species of whales, and killed one, and brought it home. This event gave new life to the business, for they immediately began with vessels of about thirty tons to whale out in the 'deep,' as it was then called, to distinguish it from shore whaling. They fitted out for cruises of about six weeks, carried a few hogsheads, enough probably to contain the blubber of one whale, with which, after obtaining it, they returned home. The owners then took charge of the blubber and tried out the oil, and immediately sent the vessels out again." Six sloops were Nantucket's contribution to this species of fishery by 1715, with a production of oil to the value of £1,100 sterling, the shore fishery being at the same time continued. In 1720 there is a record of a small shipment of oil to London, England, although there is no positive knowledge that the island had not made such importation before. By 1730 there were employed in the fishery twenty-five vessels of from thirty-eight to fifty tons' burden each, while the returns were about three thousand seven hundred barrels of oil worth £3,200. The high-water mark of the shore fishery for the island was reached in 1726. "During that year," says Mr. Starbuck, whose history

has already been mentioned, "there were eighty-six whales taken by boats, and the Coffins and Gardners, the Folgers, the Husseys, the Swains and Paddocks, the progenitors of that race of men who carried the name and fame of the little island of Nantucket to every accessible port on the globe, are chief among those who gathered this harvest.*

"As the business of whaling increased and was more systematically pursued, the size as well as the number of vessels employed was naturally increased. Schooners were added, and the vessels increased to between forty and fifty tons. As the whales about the island decreased in number because of the merciless war waged upon them from many quarters, the vessels were compelled to cruise farther and farther out in the deep sea; going southward until about July 1, when they returned home for discharge of cargo and refitment, and then cruised to the eastward of the Great Bank during the remainder of the whaling season. But the disturbances that were felt in the other industries and among the oppressed colonies of the new world touched this department of enterprise with a serious and severe hand. It was a trying time to the whale-fishery from about 1750 to 1784; during the greater portion of which time

* The largest number of whales taken in one day was eleven. In the *New England Weekly Journal* of December 21, 1730, appears an advertisement informing the public that there has been just reprinted "The Wonderful Providence of God, Exemplified in the Preservation of William Walling, who was drove out to Sea from Sandy Hook, near New York, in a leaky Boat, and was taken up by a Whaling Sloop & brought to Nantucket after he had floated on the Sea eight Days without Victuals or Drink."

the business was carried on under risk of capture, from the Spanish and French at first, and at last by the English. As one result, the Colonial Davis strait fishery was quite abandoned, the vessels cruising mostly to the eastward of the Grand Banks, on the edge of the gulf stream, and near the Bahamas." A continual succession of foreign wars, in which the hardy fishermen and farmers of New England were constantly called to the aid of England, coupled with a like succession of intolerant measures adopted by the mother country toward the plantations, which, in common with the colonists at large, they felt impelled to resist, was gradually preparing America for the eventful struggle which was to end in its independence. "By the experience of the wars they learned their strength; through the pressure of the tyrannical acts they learned their rights." Before the expedition for the reduction of Nova Scotia in 1755, an embargo was laid upon the Bank fishermen, although the risk of capture was such that only the most venturesome made their appearance in those waters. Two years later, in 1757, the embargo being still continued, the people of Nantucket and Martha's Vineyard presented a petition to the general court of Massachusetts, in which they set forth this plaint: "Being Informed that your Honours think it not advisable to Permit the fishermen to Sail on their Voyages untill the time limited by the Embargo is Expired by Reason that their fishing banks where they Usually proceed on said voyages lyes Eastward not far from Cape breton, which may be a means of their falling into the hands of the french which

may be of bad Consequence to the Common Cause. Your Memorialists would Humbly observe to Your Honours that that is not the Case with the whalemen, their procedure on their Voyages is Westward of the Cape of Virginia, and southward of that untill the month of June, from which Your Memorialists are of the mind there is nothing like the Danger of their falling into the hands of the Cape breton Privateers as would If they went Eastward. Your Memorialists would further Observe that the whalemen have almost double the Number of hands that the fishermen Carry, which makes Their Charge almost Double to that of fishermen and ye first part of the Whale season is Always Esteemed the Principal time for their making their Voyages which If they lose the greatest part of the People will have nothing to Purchase the necessaries of life, withal they haveing no other way which must make them in a miserable Situation. Your memorialists would therefore beg that ye Honours would take Our Miserable Situation under Consideration, and grant our Whalemen liberty to Proceed on Our Voyages from this time If it be Consistent with your Great wisdom, as in duty bound shall ever pray."

In response to this very fair and modest request, the council, on April 8, 1758, passed the following resolution: "Inasmuch as the Inhabitants of Nantucket most of whom are Quakers, are by Law exempted from Impresses for military Service. And their Livelihood intirely depends on the Whale fishery—Advised that his Excele'y give permission for all whaling Vessels belon'g to s'd I'd to pursue their Voyages, taking only the

Inh'ts of s'd Island in s'd Vessels and that upon their taking any other persons whatsoever with them they be subject to all the Penalties of the law in like manner as if they proceeded without Leave." Nothing appears in the order concerning Martha's Vineyard, one of the joint petitioners.

In the years 1755 and 1756, Nantucket was a heavy loser, both through the chances of the sea and of the foreign foe. Six of her vessels in the years named were lost at sea, and six more taken by the French and burned, with their cargoes, while the crews were made prisoners of war. "In 1760 another vessel was captured by a French privateer, of twelve guns, and released after the commander of the privateer had put on board of her the crew of a sloop they had previously taken, nearly full of oil, and burned. The captain of the sloop, — Luce, had sailed with three others who were expected on the coast. The day after Luce was taken, the privateer engaged a Bermudian letter of marque, and was beaten. During this engagement, several whalemén in the vicinity made their escape. In the same month, June, another privateer of fourteen guns took several whaling vessels, one of which was ransomed for four hundred dollars, all the prisoners put on board of her, and she landed them at Newport. In 1762 another Nantucket sloop was taken by a privateer from the French West Indies, under one Monsieur Palanqua, while she was cruising in the vicinity of the Leeward islands."

The year 1775 saw Nantucket the owner of a fleet of one hundred and fifty vessels, with a burden of fifteen thousand tons

—to which extent had her great industry already grown. The business was carried on with its customary losses and gains until the War of the Revolution came, and proved a serious blow to the general prosperity. Of the one hundred and fifty vessels above named, one hundred and thirty-four had fallen into the hands of the English by 1784, and fifteen more had been lost by shipwreck; many of the young men had perished in the perils of the war; in about eight hundred families on the island there were two hundred and two widows and three hundred and forty-two orphans; the direct money loss far exceeded one million dollars; and one man alone, William Rotch, lost over sixty thousand. The patriotism and courage of the people of this little bit of soil set in the ocean, may be understood somewhat from the estimate that no less than twelve hundred seamen, mostly whalemén, were captured by the English or perished at their hands, during the Revolution, from Nantucket alone. The War of 1812 also entailed a great loss, the Nantucket fleet being reduced from forty-six to twenty-three during that period; but by the close of December, 1820, she possessed seventy-two whale-ships, with an aggregate of 20,449 tons, besides several brigs, schooners and sloops. In the year 1835 commenced that season of whaling which opened what has been called the Golden Age of the industry. "During the next decade the whale-fishery assumed its greatest importance, and reached the zenith of its commercial value." In this year, 1835, the ship *Ganges* of Nantucket, Barzillia T. Folger, master, captured the first right-whale ever taken on the Kodiah

ground, which was the commencement of this fishery on the northwest coast. From this period the fleet rapidly augmented in size to the year 1846, when there belonged to the various ports of the United States 678 ships and barks, 35 brigs and 22 schooners, with an aggregate capacity of 233,189 tons, and valued at \$21,075,000.

The special fortunes of Nantucket, from the close of the Revolution to modern days, have been briefly summarized* in the following words: "Recovery from the disasters of the war was slow. The principal market for oil was in England; and to shut off the importation from America, parliament passed an alien duty of £18 sterling a ton. Although the general court of Massachusetts, in response to the petitions of the people of Nantucket, declared a bounty, it did not permanently remedy the trouble. So heavy was the pressure brought to bear upon Nantucket by the adverse circumstances immediately succeeding the Revolution, that large numbers of her hardy mariners and wealthy merchants were compelled to leave the home endeared to them by so many happy associations, and seek in foreign countries the recompense for their toil and their investments that they were unable to obtain in the United States. Some of them settled in Nova Scotia, some in England and some in France. In the English and French fisheries there sailed a large number of officers and men who once found a home in Nantucket. Following closely upon the stagnation re-

sulting the troubles from the Revolution, came the troubles with France, in which Nantucket suffered to the extent of nearly one hundred and fifty thousand dollars. Then again came complications with England early in the nineteenth century. Scarcely had a slight gain been made, and the business again become remunerative, when the War of 1812 occurred. A large portion of Nantucket's fleet of forty-six whale-ships was then at sea. The first of the fleet captured was the schooner *Mount Hope*. In rapid succession came the tidings of the capture of ship after ship until one-half of the number, besides smaller vessels, had fallen a prey to British cruisers. Some were taken on the return voyage within sight of the island. The miseries and deprivations of the Revolution were repeated; the same struggle for existence was maintained against the same terrible odds. In February, 1815, came the tidings of peace, and again our islanders essayed to restore their shattered fortunes. The first vessel to return to any port in the United States with a cargo of oil, after the last war, was the sloop *Mason's Daughter*, which, after a six weeks' voyage, returned to Nantucket on the ninth of July, 1815, with one hundred barrels of oil. Recovery from these disasters of 1812-15 was rapid. In 1819 occurred the accident to the ship *Essex* of Nantucket, which has always been accounted one of the most singular and direful that has ever happened to a whaling vessel. An enraged sperm-whale attacked and sunk her, and the crew were obliged to make a journey of three months' duration, and about two thousand miles in extent, in frail, shattered whale-boats.

* From 'The Island of Nantucket: What It Was and What It Is.' Compiled by Edward K. Godfrey; published by Lee & Shepard, Boston, 1882; page 339; in an article prepared by Alexander Starbuck.

But eight of a crew of twenty men survived to tell of the terrible perils and privations of the voyage. In 1824 occurred another memorable disaster to the crew of a Nantucket whaling ship. The crew of the ship *Globe* mutinied, killing the superior officers and some of the men. But eight of the crew returned alive to Nantucket to tell this tale of horror. The others—those who were not killed by the mutineers—were massacred by the natives of the Mulgrave islands, to which place the vessel had been taken by the conspirators.

"The business of whaling, from Nantucket, reached its culmination in 1842, when eighty-six ships and two brigs and schooners belonged to the port, having a capacity of 36,000 tons. From this time the pursuit from Nantucket declined. Losses by a terrible visitation of fire, the stampede for the gold mines of California, the scarcity of whales, the expense of fitting and increased dangers of the Arctic fishery, the decline in the value of the product, the discovery of petroleum, all served to cause the downfall of whaling, not only in Nantucket, but in other ports. In 1869 the last whale-ship sailed from the port of Nantucket; and the business, so far as the island's interest is concerned, is a thing of the past. Nantucket's mariners now sail from other ports, and the story of their skill and daring are stories of by-gone years."

These are the bare outlines of a record full of wonderful events and thrilling scenes of danger and heroism that would need the generous space of volumes to relate. The personal deeds of the Nantucket men are scattered all along the pages of American history. With John

Paul Jones on the *Bonhomme Richard* were five Nantucket men, when he earned his glories in the English channel and the North sea; and no one was found more worthy to convey a prize to France than Lieutenant Reuben Chase, made immortal as "Long Tom Coffin" in Cooper's novel of 'The Pilot.' The variety of adventures that are a part of that history is as great as the theatre of operations upon which they were performed. The *Boston News-Letter* of an early date relates one of them: "In October, 1767, a whaling schooner belonging to Nantucket arrived at the bar off that port, on board of which were four Indians, who had had some dispute at sea, and agreed to settle it on their return. As the vessel lay at anchor, the vessel and crew—except three white men and these Indians—went ashore. The whites being asleep in the cabin, the Indians went on deck, divided into two parties, and arming themselves with whaling lances, commenced the affray. The two on one side were killed immediately; the other two were unhurt. The white men, hearing the affray, rushed upon deck, and seeing what was done, secured the murderers. In November of the same year some Newburyport fishermen were astonished at perceiving their vessel hurried through the water at an alarming rate without the aid of sails. Upon investigating the cause, it was found that the anchor was fast to a whale, and the cable was cut, relieving them of their unsolicited propelling power." From an interesting sketch* penned by F. C. Sanborn, esq., the subjoined incidents are culled at

* Nantucket *Journal*, April 2 and 9, 1885.

random, as furnishing points of interest in supplement of what has gone before :

"The ship *Thames*, Captain Reuben Clisby of Nantucket, sailed in October, 1822, from New Haven for the Pacific ocean, having on board the first missionaries for the Sandwich islands, Revs. Mr. Bingham, Williams, Charles Stewart and others, with their wives. They landed at Oahu and Lapina in May, 1823. The ship *Helena*, Captain Uriah Coffin of Nantucket, also sailed from New Haven for the Pacific. Both ships came home with full cargoes of sperm-oil from the coast of Japan, but oil was only worth thirty-eight cents per gallon, and the ships were sold to Sag Harbor.

"In 1785 Mr. William Rotch went to London and there waited four months upon George III. and William Pitt and his council, subject to the call of Pitt at any time. Lord Hawkesbury at length gave him a hearing, but would not listen to Rotch's proposition to bring twenty ships from America, with all their material for whaling, and enter them free of duty. Mr. Rotch, tired of waiting, and getting no satisfaction from Hawkesbury, left England on the ship *Maria* for Dunkirk, France. On his arrival in Paris he was granted an early interview by the French minister, who agreed to admit his ships, and, in fact, agreed to all Mr. Rotch demanded, and the business was soon in successful operation. His ships were dispatched to the Pacific coast of Africa and Falkland islands. On the first of February, 1792, the ship *Falkland*, Captain Obed Paddock, arrived at Dunkirk, filled with sperm-oil. A week later the *Harmony*, Captain David Starbuck, ar-

rived with a full cargo from Peru. These ships were among the first that obtained sperm-oil in the Pacific ocean. The *Harmony* was afterwards (1796) sunk by a whale on Brazil Banks, which leaped on board in the night. The crew were all saved, being taken on board the ship *Lee* of Nantucket. Abel Rawson was captain of the *Harmony* at the time. This Captain Rawson kept the Staten Island Light, New York, as late as 1826.

"When the French revolution broke out, the Rotches accepted certain terms from the English government and went to Milford Haven with a part of their ships. After the revolution in France the Rotches had two fleets of whalers, one sailing from England, the other from France, and this continued until the death of Mr. Benjamin Rotch, in London, in 1839. The French fleet continued in existence until the death of Mr. William R. Rodman, a grandson of Mr. Rotch, which event occurred in 1855, the business thus remaining in the family for seventy years, and passing from grandfather to grandson.

"While in France Mr. Rotch appeared in the French assembly with a petition for a modification of the Conscription and Maniago laws, which should favor the Friends or Quakers, many of whom had emigrated from Nantucket with their families to France. He was listened to with marked attention by all who were in the assembly. Mirabeau was chosen to reply to him, and it was a masterly effort. Edward Everett is quoted as saying that it was the best speech he ever made.

"During the War of 1812 Nantucket was attacked at home and abroad. England kept her *Scorpions*, *Nimrods* and *Bull-dogs*

hovering around the island, capturing everything inward or outward bound. At times the inhabitants were in extreme distress for the bare necessities of life. When peace was declared in February, 1815, there was an unusual demonstration and great rejoicing among the people. The ocean was once more open and free to their ships, and they were not long in sending to sea a new and extensive fleet. We soon had a large number upon Chili, Peru and what was known as the 'off-shore' whaling-ground, which extended from near the equator as far west as the Society and Navigator's group of islands. But whales had become scarce, and the oily monsters must be sought after in new seas. In 1820 the ships *Maro* and *Rambler* of Nantucket, commanded respectively by Captains Joseph Allen and Benjamin Worth, in company with the *Syren* of London, belonging to Samuel Enderly, Captain Frederick Coffin, *Cyrus*, Captain Elisha Folger, jr., and *Balena*, Captain Edmund Gardner of New Bedford, rendezvoused at the Sandwich islands. Here they met Captain Winship of the ship *O'Cane*, a veteran northwest coast merchantman, who informed them that while crossing on his many voyages from the Sandwich islands to Canton, China, he observed a great number of sperm-whales on what was called the coast of Japan, in latitude twenty-five degrees north, longitude one hundred and sixty-five degrees east, even up to the Japan islands. Convinced that the enthusiastic statements of Captain Winship could be relied upon, the several captains hurriedly recruited their ships and sailed into these unfrequented seas. Two of the fleet arriving off the

coast of Japan in the spring of 1820, on the tenth day of May Captain Coffin saw and struck his first sperm-whale; Captain Allen, in the ship *Maro* of Nantucket, struck the next whale June 1, and both ships were filled with sperm-oil in three months after leaving the Sandwich islands, each ship taking upward of 1,800 barrels.

"Captain Coffin, while making a voyage to the eastward of Cape of Good Hope in the same ship, *Syren*, met with an adventure that came near proving fatal to the whole crew. On a fine day, while near one of the Pilew islands, all the boats being from the ship in pursuit of whales, and but a small number of men remaining on board, she was taken forcible possession of by the natives of those islands, who drove the men into the rigging for safety. The ship and all on board were now in a perilous position. These naked and howling savages had full command of the ship. When the mate came alongside he comprehended the situation at a glance, and immediately gave orders for the men in the top to open the arm-chests and scatter all the tack-nails they could find out upon the deck. This was promptly done, and the nails poured down like rain upon the heads of the demons. This was a kind of warfare which they were not prepared for. They could not understand it. The deck was literally covered with tacks, and, being barefooted, the sharp little nails penetrated their feet, while with shrieks and yells of rage and pain they tumbled headlong into the sea, leaving the ship once more in the hands of her rightful owners. The natives, however, did not leave the ship without severely injuring at least one of the crew.

While giving his order for the men in the top to scatter down the tacks, the mate, Mr. Absalom Bunker, received a severe wound from an arrow just above one of his eyes, which necessitated his return to Nantucket and final retirement from the sea.

"Reading the annals of the Nantucket whale-fishery, and looking back at the events that have occurred in connection with this gigantic business during the one hundred and seventy-five years of its history, call up many well-remembered scenes and traditions. Many and thrilling are the stories that can be told of incidents that have occurred under the frozen mountains of Disco and Greenland, on the burning coast of Africa and on Brazil, and on the more savage coasts of the Falkland islands and Patagonia. And what a terrible loss of life and property has there been in the fearful encounters of our hardy seamen with that monster of the deep, the sperm-whale! Of all the different species of whales, the spermaceti is the most savage when aroused. Instances are on record where, as soon as struck by the harpoon, they have shown fight, and have attacked and crushed into kindling wood one, two, and even three boats in turn, crushing and mangling in

their huge jaws some poor fellow, or with one sweep of their monstrous tails sending whole boats' crews to a watery grave. There are many living to-day who bear the marks upon their persons of wounds received in these terrible encounters. Some have lost limbs, teeth, had broken bones, and received contusions upon various parts of the body.

"One more fact and I am done. The first ship to cross the equator to the southern hemisphere was the *Amazon*, commanded by Captain Uriah Bunker, who obtained a full ship and anchored at Nantucket bar April 19, 1775, the day on which the battle of Lexington was fought."

"The men of Nantucket," says Mr. Sanborn with a proper spirit of home pride, "were the pioneers and directors of the whale-fishery for upwards of one hundred and seventy-five years. At this and every other port that followed it the record is a good one and will stand forever. Other people having had at times a small degree of success, have claimed more than belonged to them, and would fain leave us in the wake of their recent beginnings. We ask nothing but what belongs to our place and people, and shall maintain at any cost our prerogative as pioneers."

SEELYE A. WILLSON.

STEPHEN VANDERBURG HARKNESS.

THE late S. V. Harkness, who was suddenly called, a few months since, out of a life that had been full of labor and crowned with an exceptional usefulness, was born at Fayette, Seneca county, New York, on November 18, 1818, the son of Dr. David Harkness, who had removed to that place from Salem of the same state. The father was one of four brothers, three of whom were physicians, and a member of a family that stood high in the regard of the community. When the son was but two years of age, death deprived him of the loving care and attention of a mother, and this loss was doubled by the death of his father five years later. He was then taken into the family of an uncle. When but fifteen years of age, such slight advantages of schooling as had been afforded him came to an end, and he was set face to face with the actual realities of life. In accordance with the custom in general vogue in those days, he was apprenticed at this early age to a trade, that of harness-making being the one chosen in his case; Waterloo, New York, being the home of his employer. With that industry and courage, in the face of difficulties, that were among his marked characteristics in after life, he applied himself to his new task with a determination to become its master and make of it a stepping-stone to the success he was already determined to achieve. He pursued this line of occupation until reaching his majority, when he determined to have a part in the chances

for advancement then offering in the growing places farther to the west. Proceeding first to Bellevue, Ohio, he soon after removed to Monroeville, in the same state, where he carried on his trade for two years, at the expiration of which period he returned to Bellevue and embarked in the business of buying and selling stock. In 1852 he again removed, this time to Caledonia, Ohio, where he carried on the stock and distillery business together. In 1855 he once more made Monroeville his home, where he conducted the distillery business in connection with Mr. Bishop Perkins; and upon the death of his partner, two years later, conducted the enterprise alone. Success had been the natural result of his enterprise and business genius, and he was already recognized as one of the leading business men and capitalists in his section of the state. In 1860 he took another step forward in the road to success, and opened a private banking house in Monroeville. In 1866, feeling the need of a wider field of operations, he sold his various enterprises in that neighborhood and removed to Cleveland. He took a commanding position from the first among the business men and capitalists of that city, and gave early proof of his shrewd foresight and intuition of the chances offered by the future, by his alliance, in the formative days, with one of the financial marvels of the age. He became a partner in the firm of Rockefeller, Andrews & Flagler, in the refining

Mr. J. J. J.

of oil—a combination that became the nucleus of the Standard Oil company, and from which that colossal enterprise has grown. From the first, Mr. Harkness had faith in the ultimate success of the company, and any demand made upon him for the furnishing of capital needed to carry the ambitious measures of the organization to success, was promptly answered. The faith that led him to embark in that enterprise remained with him in each successive step of its history, and brought him results of a magnificent character. While never taking part in the active management of the Standard, Mr. Harkness was one of its directors for many years, which position he held until his death, and his advice was often sought and followed by those in active control. After coming to Cleveland, Mr. Harkness took no special part in any of the enterprises in which he had investments, although his influence and the aid of his capital were felt in many ways in the advancement of the material interests of the chosen city of his home. About 1869 he purchased the one-third interest, owned by Mr. Oviatt, in the Union elevator, Gardner, Burt & Oviatt, proprietors, and placed Mr. Morse in the firm as his representative, the firm name being changed to Gardner, Burt & Morse. In 1872 Mr. Harkness sold his interest to M. B. Clark. He was a director of the Euclid Avenue National bank; president of the Cleveland Arcade company; president of the Iron Belt Mining company; director of the Ohio River Railway company, and connected at various times with other organizations of a similar or less prominent character. He was often importuned, after his removal to

Cleveland, to reënter active business life, but always declined, feeling that in his years of activity he had performed as large a share of the world's work as one man could be rightfully called upon to perform. The large block on the corner of Euclid and Willson avenues that bears Mr. Harkness' name was erected by him at a time when that now busy quarter had given little promise of the activity it now presents, and his enterprise in that direction was one of the means of making Euclid Crossing the important point it has become.

While never neglecting the many interests of his own, or of others that were entrusted to his hands, Mr. Harkness, in these two last decades of his life, took ample time for the cultivation of tastes and the enjoyment of pursuits which were beyond his reach in the early days of youthful struggle, and the earnest labors of active business life. A passionate lover of nature, he gave many hours of each day to the open air, and was never more content than when engaged in some improvement, by cultivation, upon the efforts of nature, enriching, developing and beautifying some chosen spot to which his fancy had become attached. The grounds of his home on Euclid avenue, or of his lake shore farm in Willoughby, which he purchased some ten years ago, furnish abundant evidences of his taste and generous expenditure in this direction. The summers and autumns of recent years have seen him almost constantly at this beautiful suburban retreat, to which he hastened whenever a day of freedom from business demands presented itself. For some seasons before his death

he spent his winters in the south, in order that his love for outdoor life, and especially for fishing, might be enjoyed. In these pursuits, nothing in the marvelous variety of animal, plant or marine life escaped him, and many were the curious specimens he labored to secure and send home for the inspection and admiration of friends. His yacht *Twilight*, upon the waters of the gulf and the rivers of Florida, and his *Peerless* upon Lake Erie, were seldom idle when he was within their reach, and the long days and quiet nights he spent with family and friends upon their decks, were seasons of life he enjoyed to the fullest, and occasions for pleasant remembrance by those who were of his company. No man ever had a deeper or more sincere love for home and family, and it was in the one and with the other that his indoor hours were happily spent. Society and the club had little that could charm him; and as one who knew him well has said: "His heart was bound up in his family; it is the home circle that will miss him most; in the home circle he was best understood."

While Mr. Harkness was averse to anything that could attract public attention toward himself, and marked his career by no special charity with which his name was identified, he gave constantly, and in amounts and to a total of which not even those who knew him best could bear witness. As Dr. Haydn bore modest testimony in his eloquent tribute to his departed friend, "He was always giving. We have always found him ready to respond, freely and often. Moreover, I doubt if there have been many churches built here in these late years to which he

has not lent a hand, and some of them could not have gone forward but for him. He believed in planting churches, so many and so fast as they were needed. The church enterprise at the corner of Madison and Euclid avenues owes its present status and growing hopes largely to him. It has been my fortune to often make requests of men of means for causes connected with the public weal, and I do not remember that Mr. Harkness ever refused me. One of his latest benefactions was to one of our local charities—the Central Inn." Mr. Harkness refused all requests to take part in official or public life, although a close and interested observer of public events, and of the current happenings of the day the world over. He was a believer in Republican principles, and a supporter and loyal member of the Republican party.

In his business life, the subject of this brief memoir displayed talents of the highest order, and the success he won was by no mere combination of happy circumstances, but the legitimate fruits of an industry that hesitated at no labor, a courage that could meet obstacles and difficulties unmoved, and a natural genius intelligently applied. Those who knew him the most intimately speak with wonder of his intuition as to the future, and the keen foresight with which he could read the commercial and financial signs of the day, and indicate thereby the changes of the morrow. He could generalize conditions as then existing, and at times reach prophetic conclusions without being able, perhaps, to explain the steps or processes by which his results were attained. Many illustrations of this remarkable

faculty could be furnished did space permit. His judgment in business matters was of the highest character, and was continually exercised in aid of those about him, who had come to depend greatly upon his advice. Positive in his declarations, and self-reliant in all things, he never undertook a measure without seeing it through to the end, no matter what resources of courage or capital it demanded. His honesty was of the staunchest character, and in a business career extending over a half century and involving thousands of transactions, great and small, no man was ever knowingly wronged by him, or made to suffer a loss by depending upon his word or trusting in his honor. Dislike of crooked practices was an instinct of his character, and whenever he found himself connected ever so remotely with an enterprise that did not suggest square dealing, or parties who were not fair and above board, he made haste to end all connection therewith; and strong and vehement was his wrath when someone in whom he had trusted had meanly betrayed that confidence. As was said in the memorial discourse from which quotation has been already made: "It was with great satisfaction that I heard one, long and intimately associated with Mr. Harkness in business life, speak of his integrity, his unobtrusive modesty and quiet reticence over his successes, his faithfulness to his friends, and of his word being as good as his bond." While, in many ways, as most self-made men do, he felt the lack of those advantages of education and culture which his early years of self-support and self-dependence kept beyond his reach, he made the loss good

by keen observation, by reading, and by keeping in the storehouse of memory the many things that the clear-sighted and strong-brained traveler sees in his journey through life. Few men were better informed as to the average affairs of life and the world, and none could more fairly analyze a theory or define an idea, or bring it to a sound investigation before the bar of common sense.

In accordance with the custom already referred to, Mr. Harkness, in January, 1888, started upon his usual winter visit to the south, and hoped, in the pursuit of health and his loved out-door recreation, to spend several months upon his yacht and upon and about the waters of the Florida coast. His time was thus pleasantly spent until the early days of March, when he left Orlando, with the purpose of making a trip along the coast. An imprudent exposure to the cold when heated gave him slight trouble, which he was sure would be removed; but when some fifteen miles from land, he was taken suddenly with congestion of the heart, and although all the simple remedies at hand were carefully applied by those on board, they were of no avail, and on Tuesday night, March 6, he passed into the eternal sleep. The *Twilight* made all possible haste to Charlotte harbor, whence the sad news was sent to his family and friends in the north. Although well along in years, the health and strength of Mr. Harkness had been such that the announcement came like a sudden blow upon the wife and family, and upon the community of which he had been so long a part. The remains were borne to the home he had loved so well, and thence were con-

vayed to the quiet rest of Lake View. Words of sympathy and respect were heard upon all sides, and the wife and four children who survive him had reason to feel that, in all the varied experiences

of a long and active life, the departed husband and father had been true to his manhood and the higher duties of life, and had left them the rich legacy of an honored name.

J. H. K.

OMAHA.

IV.

THE town of Omaha (it would be improper to speak of it as ever having been a village) did not at once develop into a city, although it was given that title when named; it was nearly three years in its chrysalis state, during which period occurred many events worthy of record. Before dwelling upon these, it is important to note the plan which had been adopted by its founders in "laying out" the site, and to make mention of the circumstances by which they became its real owners by virtue of patents issued to them by the United States. But first, as to its name. It was called "Omaha City" in honor of the Indians who claimed the land as their territory at the treaty held in March, 1854, with the Omahas, Otoes and Missouris, and who yielded their title to it, at the same time, to the general government.* It is certainly an appropriate appellation; and it will perpetuate to the latest generation

the memory of the aboriginal inhabitants of this immediate section of country.

A number of definitions have found their way into print of the word "Omaha"—all of which assume that there was originally such a word, and that it was the name of a particular nation of Indians when the country was first explored by white men; but this is error. The original word, or name, as already intimated, was not "Omaha," but "Maha." The change is easily explained, for many other proper names in the country have undergone exactly the same alteration. As before stated, the earliest visitors to the Valley of the Missouri were white men, speaking the French language. By them the nation now known as the "Omaha" was spoken of as "au Maha," pronounced as if written "o Maha;" the meaning being "the Maha," in English. In course of time

* "During the summer of 1853, communications with Indians disclosed the fact that the Kickapoos, half-breed Missouris, Otoes and Omahas were not only willing but anxious to sell their lands to the government. In order to facilitate business, we determined to call a convention to meet at St. Joseph, Missouri, during the winter of 1853-4, for the purpose of memorializing the President and congress in regard

to the necessity of taking early steps to treat with the Indians, organize the territory and open it up for settlement.

The early settlement of Nebraska seemed to be a fixed fact, treaty or no treaty. The objective points for town sites and towns was the first thing to be taken into consideration."—E. H. Coles, in 'Trans. and Reps. of the Neb. State Hist. Soc.,' Vol. I., pp. 38, 39.

the English-speaking explorers to this region not only spoke the two words ("au Maha") as one word ("Omaha"), but so wrote it; hence its present form.*

A vague tradition among the Indians gives this account as to the origin of the word "Omaha:" "Two tribes," so runs the narrative, "had met on the Missouri river and engaged in an encounter in which all on one side were killed, except one, who had been thrown into the river. Rising suddenly from what was thought to be a watery grave, he lifted his head above the surface and pronounced the word 'Omaha,' which had never been heard before. Its meaning was that the supposedly drowning Indian was above the water and not under it, as his enemies supposed, and those who heard it took that word as the name of their tribe."† But this account is wholly erroneous.‡

The word "Omaha" was not in use, so far as I have been able to discover, prior to the year 1815.

*The Maumee river in Ohio was first known to the French and by them called "Au Miami," that is, "the Miami," pronounced in English ears as "O Miami." This was corrupted to "Omee," and finally to "Maumee." It is a singular fact that the Auglaize ("Au Glaize"—"the Glaize") has retained its original orthography as well as its pronunciation.

†History of the State of Nebraska' (Chicago: 1882), p. 682. Compare, in this connection, 'Omaha Illustrated,' under the heading, "The City [Omaha] Surveyed and Platted."

‡For an ingenious but erroneous attempt to explain how the word "Omaha" came to be used, see letters of Rev. Wm. Hamilton, published in the 'Trans. and Reps. of the Neb. State Hist. Soc.,' Vol. I., pp. 47-49, 73-76. The reverend gentleman confuses the whole matter in this way, after affirming that "Omaha" is a contradiction of "Eromaha:" "The

The question is, then, not what is the origin or meaning of the word "Omaha," but of "Maha." From a reliable statement, recently made, we learn that it signifies "farthest up the river"—"up yonder"—"up above the others;"§ so that by "Maha Indians" is meant "up-river Indians." The place actually received its name before the survey of the site, as will hereafter be fully shown.

The lands upon which the original survey of the town was made were, as to title, first vested wholly in the United States, by virtue of the treaty of March, 1854, with the Omaha Indians: then, by the general government, they were sold and patents issued for the same, first, on an entry made on the seventeenth of March, 1857; second, on a bid made at a government sale on the fifth day of July, 1859. The last-mentioned patent was of the date May 1, 1860, and is known as the McCormick patent, it having been issued to John McCormick; the other was issued October

letter 'O' was always annexed or prefixed to 'Mahas; 'Omaha' is proper. The early voyagers, the French, abbreviated the word or name by leaving off the word 'O' and calling them 'de Maha,' instead of 'des Omaha.'" See, also, as to another of Mr. Hamilton's letters, upon the same subject, 'The Early History of Nebraska.' By Alfred Sorenson (Omaha: 1876). p. 33.

For still another error with regard to the word "Omaha," see an account of Henry Fontenelle, entitled "A History of Omaha Indians," published in the volume just cited (p. 77), where he derives the word from "Kemoha," meaning "against the current"—"against the wind."

§Robert W. Furnas, in 'Trans. and Reps. of the Neb. State Hist. Soc.,' Vol. I., p. 49. This information was obtained by Mr. Furnas from an old chief of the Omahas, known as Noise, or Muttering Thunder.

1 of the same year, and is called the Lowe patent, it having been granted to Jesse Lowe as mayor. Both were issued to the patentees in trust for the owners of the lots upon the town site, under and by virtue of an act of the United States congress, entitled, "An act for the relief of citizens of towns upon the lands of the United States under certain circumstances," approved the twenty-third of May, 1841.

These patents were for lands in the northeast quarter and the north half of the northwest quarter of section number twenty-two, and lot number two in fractional section number twenty-three, in township fifteen north, of range thirteen east, of the government survey; which survey was made after that of "Omaha City," but previous, of course, to the issuing of the patents. The McCormick patent was for seven hundred and fifty-seven and one-fifth acres; the Lowe patent called for two hundred and ninety-eight and one-fifth acres.

The general plan of the survey of the site was on a very liberal scale, for which the present city has reason to be profoundly thankful. The surveying, mapping and marking of the public highways—the streets being one hundred feet wide, and one, "Capitol avenue," one hundred and twenty—exhibit very forcibly the generosity of Dr. Enos Lowe, who, as president of the ferry company (the founders), supervised the work as it was carried forward by the surveyor—A. D. Jones. All the lots were staked out sixty-six by one hundred and thirty-two feet, each with an alley in the rear. Three squares

were dedicated to the public: these were Capitol square, Washington square and Jefferson square. A park was also reserved for public use, but, subsequently, the latter (as well as Washington square) was vacated by the city and sold. Capitol square contained four blocks of the survey, the other two squares, one block each, while the park absorbed seven. Jefferson square was numbered as "Block 42," Washington square, as "Block 118." The blocks in Capitol square and the park were not numbered.

Under the head "Plan of Omaha City," the editors of a paper printed at Council Bluffs say, in their first number, which was issued on the twenty-eighth of July, 1854, that the survey "has been made with the greatest possible care and accuracy by A. D. Jones, esq., and is now platted and can be seen at Tootle & Jackson's store, at Dr. Lowe's office, Bluff City, or at Mr. Gaylord's, recorder, this place [Council Bluffs]. The lots are sixty-six feet front and one hundred and thirty-two in length, every lot running back to an alley twenty feet wide; and, instead of laying off the entire tract into small lots for speculation, our lots have been laid off around the business part on a liberal scale, including an ample number of commanding and beautiful points for private residences and gardens. All the streets are one hundred feet wide, except two avenues which lead to Capitol square, which are one hundred and twenty feet wide. All the alleys are twenty feet wide. Squares have been reserved and set apart for all

the leading and principal denominations, and for Masonic and Odd Fellows halls."

The date of the plat is September 1, 1854; and the names of the proprietors, as appear on the lithographic copy of the map, are Enos Lowe, James A. Jackson and Samuel S. Bayliss & Company. The steam ferry is represented as having its location at the foot of Davenport street, and at the west end of same street and as a continuation of the same, is marked an "emigrant road." As a continuation of Twentieth street running north, is put down "Winter Quarters road," and as a prolongation going south, is marked the "Bellevue road." It is said on the plat that "lots will be given to persons who will improve them; and that private sales will be made on the premises." It is also stated that a "newspaper, the *Omaha Arrow*, is published weekly at this place [Omaha City]," and that "a brick building, suitable for the territorial legislature, is in process of construction." It is further recorded that "a steam-mill and brick hotel will be completed in a few weeks." The map of the survey was not recorded, but was lithographed in St. Louis, the accuracy of the latter being fully established.*

The name of Dr. Lowe it would be unjust to pass over with a mere mention. Omaha is so much indebted to him, that his memory ought to be cherished by all its citizens. He was born at Guilford Court House, North Carolina, on the fifth day of May, 1804, of Quaker

parentage. He graduated at the Ohio Medical college in Cincinnati, and afterward practiced his profession with success. In 1847 he was appointed receiver of the land office at Iowa City, and was subsequently a member of the Iowa legislature and president of the senate. He was a member of both constitutional conventions of that state and president of the last one. In 1853 he was appointed receiver of the land office at Kanesville, now Council Bluffs, Iowa, holding the office two years, when he resigned. He was one of the pioneers of Omaha, where he died on the twelfth day of February, 1880.†

A writer who saw Omaha almost in a state of nature speaks glowingly of its site. "Omaha City," he wrote, "is beautifully situated on a wide plateau, the second bottom of the Missouri river. Back of it rise the bluffs by gentle slopes, from the summits of which the great prairies of the interior roll in beautiful undulations. From the first of these may be seen the grandest view the eye of man ever looked upon. Up and down the river on the Nebraska side run as far as the eye can reach the table-lands, so smooth, so unbroken, so perfect, the hand of art could not add to, or take from, one part of it. Beyond is the river, bordered by heavy trees, with its broad shallows and turbid current, floating with serpentine windings. On the opposite side is the broad bottom of the river; and, cutting short

*One of these lithographs is now in the possession of Byron Reed, a resident of Omaha.

† An interesting biographical sketch of Dr. Lowe, written by his son, W. W. Lowe, is printed in the 'Trans. and Reps. of the Neb. State Hist. Soc.,' Vol. I., pp. 111-114.

the view, rise the bold, rugged bluffs of Iowa, the tracery of their forests standing out in the clear atmosphere with the strongest distinctness, while Council Bluffs lies ensconced within an opening—a busy mart of all that region.”*

A record of “first things,” generally so perplexing to the local historian, naturally follows the recital of the survey and platting of a town. It is a laudable curiosity which induces the inquiry as to first settlers and first events. Fortunately, so far as Omaha is concerned, there is no lack of information on this score.

It is not often that a city—even one existing only in name—has a post-office established and a postmaster appointed before it is surveyed or a house erected on its site; such, however, was the case with “Omaha City.” A. D. Jones having a “claim” adjacent to what was soon mapped out as the town, applied in the early part of April, 1854, for the location at “Omaha City” of a post-office. What transpired as a result of his application, the following letter sufficiently shows, premising that the application of Mr. Jones was made through Dr. J. D. Test of Council Bluffs (of which place the applicant was a former resident), and that Bernhart Henn was then a member of congress from Iowa:

“WASHINGTON CITY, May 6, 1854.

“*Dr. Test* :—Yours of the tenth ultimo, relative to Omaha City post-office, has been received. I got the office established to-day and had A. D. Jones appointed postmaster.

“Yours Truly,

“BERNHART HENN.”

* James M. Woolworth, in ‘Nebraska in 1857,’ p. 93.

It is to be understood that “A. D. Jones, postmaster of Omaha City,” did not actually reside on what was a few weeks after surveyed and platted by him as the town; his “claim,” however, was close at hand. In November of the previous year he had crossed the Missouri from Council Bluffs, and “squatted” on what he afterwards named “Park Wild.” But the Indians complained, and he was ordered off by the government agent, and, as a consequence, retired across the river. In the following spring he again sought to bolster up his right as a squatter to “Park Wild,” and one of his schemes to hold possession was that just mentioned, of getting appointed postmaster. A post-office building was immediately erected; and on the twenty-eighth of May, 1854, the new postmaster moved in. However, five days previous, the bill organizing and admitting Nebraska as a territory passed congress; and as the Indians had given up their title to the lands in the vicinity, Mr. Jones had no occasion to look to his office for protection as a squatter.

Even before the “City” had been put upon paper, it had its fourth of July celebration. The glorious “fourth” was “kept” on the grounds of what was afterward named “Capitol Square” (already mentioned) by a picnic, held by a party of Council Bluffs people, among whom were quite a number who afterward became the first settlers of Omaha.

It was on the eleventh of July, 1854, that the future city received its first actual residents; for on that day Mr. and Mrs. Newell came over from Coun-

cil Bluffs—the former to work in the brick-yard and his wife to cook for him and other laborers there employed. William P. Snowden and wife, also from Council Bluffs, came across the Missouri and took up their residence in the "City" on the same day; so that now it could boast of two families resident; but the Newells only remained three weeks. Mr. and Mrs. Snowden, therefore, were the first permanent settlers in Omaha. They had charge of the "St. Nicholas" as host and hostess, keeping it as a boarding-house for the ferry company's employes during the residue of the summer and the ensuing autumn.

Immediately following the survey of the town—that is to say, on the twenty-second of July—a large and respectable number of claimants upon the public lands in the vicinity of "Omaha City" met at that place. They proceeded to enact "claim laws," and elected A. D. Jones judge, S. Lewis, clerk, M. C. Gaylord, recorder, R. B. Whitted, sheriff. As to "Omaha City," they adopted the following preamble and resolution:

"WHEREAS, the Council Bluffs & Nebraska Ferry company obtained the consent and approbation of the Indian agent in July last [1853], now one year ago, to establish a steam ferry at and between Council Bluffs and the point where we are now assembled, now known as Omaha City; and,

"WHEREAS, said company has expended large sums of money in the purchase of a steam ferry-boat, and in keeping it in regular operation; in making roads and in starting the first

brick-yard in the territory for making pressed and other superior bricks; and,

"WHEREAS, said company is about erecting a substantial and commodious brick edifice, suitable for legislative, judicial and other public purposes; as well as other buildings and improvements on their ferry claim, now Omaha City; therefore,

"Resolved, That we recognize and confirm the claim of said company as staked out, surveyed and platted, recently, into lots, blocks, streets, alleys and out lots; and bounded on the east by the Missouri river, on the north by Jeffrey's claim, on the west by Gaylord and Johnson's claim, and on the south by Jones' claim; and that we will countenance and encourage the building of a city on said claim."

It was not only that "Omaha City" had a post-office, but soon there was (as before intimated) a newspaper established there. The "City" was now not in imagination merely—an ideal town—but had actually been surveyed and platted, and there was at least one house on its site having occupants. Although this edifice was of round logs and withal a small and rough structure, it was dignified by the name of the "St. Nicholas." Here several persons who held claims in the vicinity were wont at first to congregate in the evenings and cook their bacon, corn-bread and coffee in the centre of the room, a portion of the puncheon floor having been removed for that purpose. That the "St. Nicholas" was built while the survey of the town was

in progress, seems altogether probable from the circumstance that it was located on the corner of two streets—Jackson and Twelfth. But to return to Omaha's first newspaper.

On the twenty-eighth of July, 1854, was issued from the office of the Council Bluffs *Bugle*,* the first number of a weekly paper called the *Omaha Arrow*. It was announced therein that the paper was to be published every Friday morning at Omaha City, Nebraska Territory, J. E. Johnson and J. W. Patterson, editors and proprietors. Volume I., No. 1, at the head of the first column, on the first page, had the following: "J. W. Patterson, Attorney and Counsellor at Law, and General Business Agent, Omaha City, Nebraska Territory." The advertisement heading the second column on the same page has some historical importance: "Council Bluffs and Nebraska Ferry. In view of the importance of making a good road to the river above high water, and the permanent establishment of a steam ferry, the 'Council Bluffs & Nebraska Ferry Company' was organized last summer [1853], under the general incorporation law of the state [of Iowa], thereby uniting sufficient capital for those purposes. And the company now have the

*From Vol. I., No. 1, of the *Arrow*, we learn that it was "published on Friday of each week at Omaha City, Nebraska Territory (opposite Council Bluffs), at \$2 per year in advance. For a time and until our press and fixtures arrive, it will be printed at the office of the *Bugle*, Council Bluffs, Iowa, to which place communications for the present may be addressed. A sufficient number will be issued to furnish all from the first number for some time. Send in your subscriptions and advertisements. We will send 3 copies for \$5, or 13 for \$20."

pleasure of announcing that the road is built, according to the survey and plan of Colonel Curtis, and secures uninterrupted access to the ferry, and makes it the best and nearest landing for the river packets, high or low water, and that their new steamboat *Marion*, of ample power and dimensions, to clear the track from day to day, is now here, ready to commence crossing immediately at the opening of spring. This ferry is due west of town [Council Bluffs] and in sight; and travelers up the Platte valley will find this the only direct route. Charges shall be reasonable and uniform." Although printed as an "ad" in the *Arrow*, it is evident that this was an old advertisement—one of the fall before—which had appeared in the *Bugle*.

The *Arrow* was advertised in advance by the *Bugle*, whereupon the Muscatine *Enquirer* made merry over the announcement. "From the Council Bluffs *Bugle*," said the editor, "we learn that a weekly paper—*The Omaha Arrow*—is to be started at Omaha City, Nebraska. The *Arrow* is to be a Democratic paper; success to it. 'Omaha City, in Nebraska!' that sounds droll. But our surprise is infinitely lessened when we learn that this young city contains the sum total of six houses. By the time the universal Yankee nation gets across Nebraska, but one house will be needed to constitute a city; and each squatter will lead a city life."

Under this pleasantry, the *Arrow*, upon its first appearance, could not rest comfortably, so it struck back. "Why, my good fellows," said the

editors, "we took you for western men who knew something of pioneer life. Come out, sirs, and in a short week we will satisfy you that there are decidedly too many denizens in Omaha City for comfort. Why, sirs, the 'St. Nicholas' of New York city is no circumstance for comfort, ease and cheap living to its namesake in our city. [The editors do not reveal the fact that it was the only house in the city.] Here you may get venison, fowl, bird or fish, cooked in any manner you please. You may smoke in the parlor here, put your heels upon the sideboard without injury to the furniture, or, for variety, you may spread your buffalo on the green prairie grass and take a comfortable snooze without fear of being run over by a score of woolly-headed servants. Omaha City, indeed! Why we have editors, squatters, deer, turkeys, grouse and other 'animals' a plenty, and we will soon show you that Omaha City will be one of *the* cities of the west."

The editors of the *Arrow*, in their first number, give the pronunciation of the word "Omaha," as then current, but this pronunciation has materially changed since 1854. "As many of our foreign friends," they said, "will be unable to pronounce this word ['Omaha'], we will, from our Indian directory, assist them. The proper pronunciation is O-maw-ha, accenting the middle syllable."

"A great rush," says the first issue of the same paper, "is now being made by emigrants to this favorable territory, consequently, everything pertaining to

locations, prospects, town sites and the country generally, will be interesting to our distant readers. We shall therefore give, from time to time, all such information as will be necessary on these points, and herewith note the town sites which at present attract most attention. Omaha City may be considered among the first in importance. It is situated directly opposite Bluff City, upon a delightful and slightly eminence, overlooking the country on all sides for miles around, bringing in view the city of Council Bluffs, town of St. Mary's, Trader's Point and Council Point in Iowa, and Winter Quarters in this [Nebraska] territory. It extends directly to the river landing and back, upwards of a mile, and some mile and a half up and down the river. There are some fifteen hundred lots surveyed, together with a large square on the summit of the elevation for the capitol. The streets are one hundred feet wide and alleys divide each block. There are a number of cool, clear streams and springs of water in various parts of the town site. A heavy body of timber, including many square miles, lies immediately below and adjoining the city, and the wide, open prairies stretch back from the river, that will make most delightful farms. An extensive brick-yard is in successful operation, and a large amount of prime lumber and shingles is looked for daily. A number of houses are already reared, and hundreds are anticipating building this summer and fall. Preparations are in progress for rearing a large and commodious

building immediately, to be used at present as a state-house, and for offices of the various departments, provided it should be required by the Executive. A good and commodious ferry-boat runs every day between this city and Council Bluffs. Much bustle and activity are exhibited by many who are preparing to build and remove to our new and delightful territory."

The first real estate advertisement relating to "Omaha City" will interest the reader. Is prefaced by an editorial in the *Arrow* to the effect that "our city is surveyed, and lots—choice lots—are now for sale (see advertisement):

"OMAHA CITY LOTS FOR SALE.

"A limited number of lots in Omaha City are now ready for private sale. Call on the undersigned, or on Mr. Boyer at Tootle & Jackson's store

[Council Bluffs]. Lots will be given to persons who wish to build this season.

"July 28, 1854."

"E. LOWE.

When the Snowdens settled in "Omaha City" and became the first permanent residents of the town, their immediate neighbors were Omaha Indians, then living near what was and still is called Sailing's Grove, in Sarpy county, about five miles southwest of the city. Wolves, rattlesnakes, with another reptile of still more hideous mien, but not venomous—the bull-snake—then infested the beds of the two creeks, which have since disappeared in sewers. Mr. and Mrs. Snowden, with others, in the following winter nearly froze and starved. They had to live on leaden bread, cove oysters, "side meat" and sanguine hopes. Of the last mentioned, it is needless to say they had an abundant supply.

CONSUL WILLSHIRE BUTTERFIELD.

[To be continued.]

THE BAR OF OMAHA.

THE erection by congress, in 1854, of the territory of Nebraska was speedily followed by the appointment of Fenner Ferguson as chief-justice and Experience Estabrook as district attorney of the new organization. These officers reached the western bank of the Missouri soon after their appointment, the chief-justice establishing his residence at Bellevue and Mr. Estabrook choosing Omaha as his home. Judge Ferguson was doubtless influenced in his selection by the fact that Honorable Francis Burt, the first governor of the territory, had, as it was understood, fixed upon Bellevue, a beautiful and commanding site about ten miles south of Omaha, as the seat of government. Harassed, however, beyond measure and worn out by the vexatious trials incident to his new position and the persistency with which the conflicting claims of rival town-site speculators were pressed upon him, the new governor, in just ten days after his arrival in the territory, relinquished the struggle and sought rest in the grave. His successor, Governor Cuming, was built of stronger stuff, and though "plied, begged, pressed, entreated, assailed and even threatened" by almost every township in the territory, he at last escaped from further importunity by designating Omaha as the place where the first session of the legislature should be held.

An Executive proclamation, however, directed that the session of the territorial district court for the First district should be held at Bellevue; and in this beautiful village, therefore, on the twelfth day of March, 1855, the first court ever held in Nebraska was solemnly opened. Those appear to have been easy times for Nebraska judges. The only business transacted at that term of the court was the appointment of Silas A. Strickland as its clerk and the administration to him and filing of the official oath. These weighty affairs having been satisfactorily accomplished, the court adjourned, for rest and recreation, to the twelfth day of the next April. On that day the labors of the judge were less onerous, the only business being an adjournment for six months to the sixteenth of October.

Upon the last-mentioned date the court came promptly to time, and on this occasion its session was held in the city of Omaha. The chief-justice presided, with Mr. Estabrook as district attorney and Mr. George Armstrong as deputy clerk. Fortunately for the reputation of the tribunal, a suit had by this time been commenced. This was the case of William Whitmore against Almiron Lockwood. Of this, the pioneer case in a Nebraska court of record, the files have disappeared, and the journals of the court give us but little information. Even the names of

the attorneys engaged in it nowhere appear. All that we know of it is that a demurrer was interposed to the petition, which was argued on the twenty-third of October, 1855, and taken under advisement by the chief-justice, who on the next day rendered his decision sustaining the demurrer and dismissing the action. So ignominiously perished the first-born of Nebraska jurisprudence, without even an opportunity for a trial on the merits.

"O fairest flower, no sooner blown but blasted,
Soft, silken primrose fading timelessly away."

Another case which came up at this term of the court, and, like the former, never reached the ordeal of a petit jury, was that of the Territory of Nebraska against Charles A. Henry. This excited great interest among all residents of Omaha, and is well remembered by such of them as still survive. The defendant (commonly known as Doctor Henry) was a man of great force and energy of character, attractive manners, sudden and quick in quarrel, impetuous, rash and careless of consequences. He had been unfortunate enough to kill his antagonist, one Hollister, in an affray which took place on the steps of a building then standing on the present site of the United States National bank. Forthwith, as is usual in such frontier cases, sides were formed, one denouncing the homicide as an atrocity, without excuse or palliation, and the other maintaining it to be purely a case of justifiable self-defence. The doctor was committed to jail on a mittimus from Judge Ferguson, and by his orders was handcuffed and shackled. This

seemingly needless severity may perhaps be explained by the imperfect security which any place of confinement at that early day could offer. Of the first grand jury summoned to deliberate on this case, hardly any remain alive, and but one, so far as known, is at present a resident of Douglas county. Jesse Lowe, afterwards a wealthy real estate owner in Omaha, was its foreman. After an investigation of two days the jurors reported that they could not agree upon a bill of indictment, and asked to be relieved from further consideration of the case. Whereupon followed cross motions, one by Henry's counsel for his discharge, and the other by Prosecuting Attorney Strickland for an adjournment and submission to another grand jury. After a day's meditation, the judge sustained the latter motion, ordered a new venire, and directed the defendant "to be confined meanwhile in the manner heretofore prescribed." The latter clause of the order, however, probably became the subject of earnest remonstrance, for on a subsequent day it was modified, "by striking out so much as relates to manacles and fetters." But the new jury, which was sworn on the twenty-seventh of the following November, had no better luck than the old, for on the first of December they "return to the court that the charge against Charles A. Henry be dismissed," which was accordingly done; and so ended a prosecution which had produced no little heart-burning and heated discussion.

Within the first year after the organization of the court—that is, up to March

12, 1856—the court records exhibit the following list of attorneys admitted or practising before it: D. H. Solomon, A. J. Poppleton, E. Estabrook, James M. Woolworth, Allen Root, Oliver P. Mason, William E. Moore, T. B. Cumming, Charles Grant, Bird B. Chapman, Silas A. Strickland, D. W. Price, John M. Thayer, C. T. Holloway, L. L. Bowen, L. M. Closs, Jacob Safford, Jonas Seeley, J. McA. Latham, O. D. Richardson, A. J. Hanscom, C. E. Stone, A. C. Ford, R. L. Douglas and R. N. Matthews.

Many of these names speedily disappeared from the records, but it is worthy of note that of those who remained in the territory there is hardly one who did not succeed in acquiring fame or wealth, and in many cases both, in the residence of his adoption. Several of them, among whom may be mentioned Messrs. Poppleton, Estabrook, Woolworth, Judge Mason, Governor Thayer and Mr. Hanscom, survive to this day, either in the retirement of well-earned leisure and the enjoyment of ample fortunes, or in the prosecution of successful business.

Not one of them, however, unless he was fortunate enough to hold the office of district attorney, was probably able to support himself during the early months of his career by the practice of his profession alone. A map of the city of Omaha, prepared by Mr. Poppleton and his partner, is to this day, in the absence of any recorded plat, the only authentic memorial of its original survey that we possess. The docket of the district court shows that on the

eighteenth of July, 1857, James M. Woolworth filed in the clerk's office a book entitled 'Omaha City, the Capital of Nebraska: Its Growth, History, Commercial and Other Advantages and Future Prospects.' All of them dabbled more or less in real estate, and some, speculating extensively, laid the foundations of large gains in the not distant future. Business, however, grew and the embryo city prospered; and with the increase of wealth and population came, of course, increase of litigation.

To this increase of practice contributed in no small degree the operations of a singular and little understood organization known as the Omaha Claim club. The object of this much maligned or justly abused institution appears to have been chiefly to allow each of its members to acquire and hold three hundred and twenty acres of the virgin soil of Nebraska instead of the one hundred and sixty acres which the government permitted pre-emptors to obtain. There was, of course, under the Land laws of the United States no legal method by which this desirable end could be obtained; but the earliest settlers reasoned, and not without some show of plausibility, that they who were first in the field, who had undergone all the hardships, trials and privations incident to the foundation and establishment of a new colony in what had been a barren waste, who had made it possible for others to enjoy the privilege of securing in fee simple a portion of the public domain, should themselves have a right to something

more than those who at the eleventh hour were appropriating the fruit of their toil and anxiety. The means, however, which the pioneers adopted to protect themselves in their self-asserted rights were such as can hardly be commended by the more peaceable and law-abiding citizens of the present day. The Claim club had its regular constitution, laws, officers and records. It is extremely doubtful, however, if all the transactions of the club were recorded by its secretary. When a newcomer, with no fear before his eyes of the regulations of the society, filed in the land office of the United States his preliminary papers upon a quarter section which had already been determined by the Claim club to be the property of one of its members, he was quietly and peacefully notified that he was infringing on the rights of older settlers and claimants. If he proved refractory, and failed to take the hint so delicately conveyed, he was, by a solemn warning, given the alternative of peaceful abandonment or forcible ejection. If still contumacious, violence was resorted to; and in some instances blood was shed and serious injuries inflicted. In these conflicts the club uniformly triumphed. Its members were numerous, bold, determined and not always overscrupulous. Against them a low settler, with but few or no acquaintances or friends, could stand but little chance of success. A few immersions in the Missouri, a few conflagrations, a few shots, generally convinced the boldest that it was useless to contend against forces of such decided superiority.

But with the establishment of a settled system of jurisprudence the tide of victory began to turn. Those who left Nebraska at the behest of the club began one by one to straggle back again, and to invoke the attention of the courts to their alleged wrongs. Actions of ejectment, suits to quiet title, all the various remedies known to the law, were set in motion for the redress of outrages and the restoration of their rights. These, then, were, of course, harvest days for the disciples of Blackstone. Many an historic case fought its slow way through the different tribunals of the land office, the courts of the territory and those of the United States, and were contested with a vigor and pertinacity and at an expense which frequently left the successful litigant shorn of most, if not all, of his valuable acres, and but a barren victory to boast of. But this result was not without its exceptions. More than one wealthy resident of Omaha owes his fortune to the heroism and obstinacy with which he resisted the aggressions of his neighbors, and to the perseverance with which, if conquered for a time, he returned again and again to the conflict. Lawsuits involving so many and varied questions as would naturally arise in such cases could not fail to educate even an ordinary bar. But the bar of Omaha in those early days was by no means an ordinary one. It was largely composed of young men from eastern or middle states, many of them of liberal education, enterprising, as was proved by their emigration to the very border of civilization, active, zeal-

ous, ambitious, shrewd, bold and fertile in resources. Self-reliant, too, they were forced to be, for at first there were but few law-books, few or no advisers of experience, and little opportunity for study. Where precedents are not to be had, the pleader must make them for himself, and he who makes his own precedents soon ceases to need them at all.

The practice, as in all newly settled western states, was largely confined to courts of justices of the peace. These officers were generally strong-headed, sensible and sometimes obstinate business men, with a sovereign contempt for the technicalities of the profession, and the tricks by which, now and then, lawyers sought to sway them against their better judgment. It was one of these who, when Pot Sullivan complained that he had decided a cause immediately upon the conclusion of the testimony and without hearing argument, offered to permit Sullivan to argue the case at once, and further proposed to bet five dollars that the lawyer couldn't change his mind by any speech he might make.

The bar of Omaha in those days did not confine their practice to their own county. On horseback or in rattling buckboards, they toiled up the muddy Valley of the Missouri to the very border of what is now the territory of Dakota. Southward, they forded the Platte, a feat that few lawyers of the present time would care to hazard, and tried cases anywhere north of the Kansas line. The dusky children of the prairie, Pawnees, Omahas, Poncas and

Otoes, crowded around the log court-houses in their gay blankets, pressed their stolid faces against the windows, and wondered at the impassioned oratory of the pale-faced advocates, so different from the guttural ejaculations of their own stoic chiefs. Barring the heat of summer, which became uncomfortable when the mercury reached over a hundred degrees, and the cold of winter, which now and then froze ears and hands, perhaps even feet and legs, and the mud of spring of unknown depth, tenacious as tar, and occasional blizzards and cyclones, which interfered with appointments, these journeys were agreeable relaxations from the monotony of home life.

So, too, were the oft-repeated trips to Washington to argue the numerous cases which went up from the courts of the territory to the supreme court of the United States. Even in that august tribunal some of the members of the Omaha bar were no mean antagonists; and though occasionally one might carry with him from the prairies some redundancy of gesture or exuberance of language, he understood his case thoroughly, and the opponent who attacked him unwarily might have cause to regret the encounter. A story long current in Omaha, and which certainly has some basis of truth, relates that a scholarly and dignified gentleman concluded his argument before the justices by asserting that he believed he had in the preparation of his case examined and studied every reported decision of either English or American courts which bore upon the question at issue. The

Omaha counsel, who opposed him, alluding to this boast, declared, with entire gravity and sincerity, that he was reminded by it of that passage of Scripture, "Whoso bloweth not his own horn, verily, verily, I say unto you, it shall not

be blown." It is said that even the stern and impassive features of Chief-Justice Taney relaxed a little at this startling and novel citation from Holy Writ.

JAMES W. SAVAGE.

[To be continued.]

AMERICAN HISTORY AS AFFECTED BY THE HUDSON BAY COMPANY CANOE PATHS.

NO ONE can say what channels the inevitable march or current of events might take, if the successful one had failed. So no one can certainly say, had the apparently trivial beginnings failed which led to the settlement of "Oregon"—the Oregon, meaning the vast region beyond the Rocky mountains, then in the title possession of the United States—what would have been the subsequent initiatory facts of history. But thus much is clear: Oregon was in the possession of the Hudson Bay company, to which the Englishman is ever proud to attach the name of honorable: the Honorable Hudson Bay company. The honorable is true in the sense of judicious, mercantile, money-making principles, which gave certain good to Oregon and British-American Indians. As, for example, the company's influence stopped nearly all intertribal bloodshed. It, at an advantage to the Indians, gave goods and hunting arms and ammunition to these tribes. It found out, and made passable, through British possessions and Oregon, the "canoe paths," by which a slow but sure intercommunication was

had with all parts of northern Canada, to Hudson's bay, to the Athabasca country, to the eastern base of the Rocky mountains, to McKenzie's river, to the top peaks of the Rocky mountains, to Oregon. This canoe roadway, with its various branches, is to me one of the singular facts of American history that but few comprehend. It reached from Montreal, *via* the Ottawa river, through Georgian bay and the lesser bays that, hundreds of miles long, connect with Lake Superior, to this lake, and thence skirted Lake Superior to Alexander or Thunder bay. There, by a portage of several miles, it passed inland by the series of lake and river channels to Rainy lake, Lake of the Woods and Lake Winnipeg; thence its main channel ran northwest to the Athabasca river, and then down that river to Athabasca lake; and then on northward to the Great Slave lake, where it encountered the beginnings of Polar ice. Undaunted by cold and ice for the larger part of the year, it went still northward to McKenzie's river; down the hundreds of miles of that river, until the Polar ice sea cut off further progress.

After the days of that inimitable describer of the country and scenes of his exploration, Alexander McKenzie, on the hint of there being a river beyond the eastern ridge of the there divided Rocky mountain range, this vast canoe path went up the Rocky mountains, crossed their summits, and descended the main eastern head stream of the recently explored vast Yukon river of Alaska, and went down the Yukon to the last lower third of that river, where it crossed the hilly ridge of this river, descended another river, and reached Behring's sea of the North Pacific ocean. Thus from Montreal to the mouth of the Yukon, in Alaska, there was a water canoe path, with only comparatively short interruptions by portages for both freight and passenger canoes—an achievement worthy of the so-called "honorable" company. And were these things that I have named so far in this article all, I would mix no alloy with these descriptions of the doings of that company.

Further, the canoe road branched at Fort Chipewyan, on Athabasca lake, and went to the southwest (originally), by the Peace river, to the base of the Rocky mountains, and by another and later made canoe road, which left the main road near the "Northwest House," ascended that part of the River Athabasca above where the main road began its descent of that river, and in the direction of the Lesser Slave lake, and in connection with this lake reached the "Rocky Mountain House," or company's station, whence the climbing the Peace river up the Rocky mountains began to cross these mountains; with the singular fact that the Peace river goes to the very top of the mountains, where

within a few rods two lakes are the summits of two great canoe paths; from thence to the Pacific ocean: namely, first that by the headwaters of the Frazier river, down which the Canada railroad now passes; and, second, the headwaters of the Columbia river, making the canoe path to Oregon and the mouth of the Columbia. To these two, to the northern Pacific ocean, was afterwards added the third collateral road or canoe path—that of the Saskatchewan river. This Saskatchewan canoe path had numerous branches, for it was the one nearest United States territory, by which the Honorable British Hudson Bay company penetrated as far as possible United States territory, and, on the principle of a cat's stealing meat off of a table whenever the cat can, stole the United States fur, because we did not constantly watch our territory. Indeed, this transgression on the rights of the United States, east of the Rocky mountains, where there were not the slightest treaty rights to plunder us, was carefully and systematically done, all the way from Lake Superior to the Rocky mountains. Beyond them, treaty gave England and the United States the equal right to the fur trade; and the Honorable Hudson Bay company did us the honor, by intrigue and violence, to cheat us out of the "joint occupation" for furs of "the Oregon." As one of its sins, seen in 1835-6, the father of the writer of this article was saved from assassination only by the interposition of that man of good principles, whose influence, however, indirectly did much harm—Dr. McLaughlin of Fort Vancouver, on the Columbia river. When my father's presence and what it implied

were seen to be contrary to the "honorable" company's interest, a danger was incurred, though any and all citizens of the United States were guaranteed by treaty the right to go and trade as they pleased in Oregon.

Another branch of the great canoe path was to the western shores of Hudson bay. This was a side branch, liable to many interruptions, but for years was kept open. And still another further north, side branch of the main trunk canoe road, was that to the eastern part of Great Slave lake, and on to Back's river, and to the channels that open to the Polar sea, a few hundred miles south of Wellington channel; and by it the approach was made at intervals to the King William's Land, where Franklin's polar expedition lost its last survivors; so near, that by it, a few days' journey beyond its end, led to the ground where the last relics of the Franklin expedition were found. This canoe path, though longer than the Schwaska overland route from Marble island to King William's Land island, was safer, for the canoes could carry food supplies, while if by chance the reindeer should have left their accustomed feeding-grounds, Lieutenant Schwaska must have starved. As a side remark, the canoe path had the universal traveler's liquor transportation. But the overland expedition of Lieutenant Schwaska was, a few days after its departure, without alcoholic liquors, in the finest of health; a degree of health they lost when on their return to Hudson bay they again procured them, and were incapacitated for labor. There were canoe paths also directly northward of Alexander bay; and, indeed, all over the eastern

part of the Canadian territory, eastward of the line from south end of Hudson bay to Alexander bay, on Lake Superior. But since no such noble-minded men as Alexander McKenzie, or a traveler like Coxe, who is the best, perhaps, accessible authority on the Columbia river and Peace river canoe road to the Athabasca, Fort Chipewyan house, and thence to Lake Superior, the Ottawa and Montreal. I am unable to explain their general or specific routes, for of all secret archives are those of the Honorable Hudson Bay company.

If I can picture to the reader my estimation of the Hudson Bay company, it will be of a high, noble-minded English company of gentlemen, who on English soil were the authors and enforcers of the far-reaching diplomacy and commercial rules of this vast region, whereof the canoe roads was the vast highway, with its thousands of miles of branch roads. They stand as the finest men in integrity and perseverance and adroitness that the world ever saw. Their canoe path and its branches are unexampled in the history of the globe; and if I cannot but condemn the influence of that company, it is because all soulless corporations are as sinful and as insensible to their crimes as ever was the Hudson Bay company. To-day the best of men are at the head of our railway corporations, men whose very characters of honor are beyond dispute. Yet their cars rattle by every church on the Christian Sabbath, a sinful offence to every Christian, without excuse. These men deprive their employes of a day of rest, and send them by hundreds, in consequence, to premature graves, which is a crime; they

injure by restless, ceaseless activity, the mental ability that enables telegraphic train dispatchers and engineers to run safely their cars. And so on of the abusive use of their power, in a manner totally contrary to any Golden Rule.

So these honorable gentlemen of the Hudson Bay company took thousands of boys and youth, many out of Christian homes in Scotland, and isolated them in their "houses" or fortified trade buildings, such as the Calumet house, Bellfont house, Enterprise house, etc., etc., to spend months and years in almost and often total isolation from all society except as the annual visit of the canoes, the dispatch and reception of letters and goods gave a glimmer of the outside world; as if to be in the most terrific regions of North America at the very best days of youth did not wring out of soul and body of these thousands of youth, for long and long years, their life's vigor, that they might obtain their ultimate British gold at the price usually of all that was valuable in those young men. To these youth there was no woman but the half-breed or Indian concubine. No honorable marriage. And if one like Dr. McLaughlin and others did make their concubinage marriage, and did rear children as he did his daughter, it was the exception, not the rule.

So there was no honesty that took a sea-otter pelt worth one hundred dollars for fifty cents of powder or sugar! Say what you will, the one to the ten thousand per cent. obtained out of the Indian was dishonorable and dishonest; and no English gentleman had a right to thus take advantage of the Indian.

It is in vain to say that the Indians became peaceable, dependent on a steady policy that supplied them with goods, and were taught laws of an even, constant trade, and their lives were made better. All that was honorable. But to set examples of concubinage, by all or most of the employés, was ruinous to the Indian in the end. These "honorable gentlemen" of the Hudson Bay company were Protestants originally. They sold Christ in the Reformed religion to papacy, because the Canadian boatmen or *voyageurs* were under Rome. That was not honorable. And when the right of employé to become graded members of the company, these Englishmen sold their God-given rights of English churchmen to mammon; whereas, had Englishmen been true to their God, the evangelization of the world had been far in advance of what it is. The world needs no more Papal, Spanish or South American civilization, or even French religious influence, that allows ignorance and licentiousness.

Again, there is no honor in either Englishmen or Americans when equal rights are excluded. For example, to every animal and man, oleomargarine is an essential element; and no life can be sustained in any warm-blooded being without oleomargarine; yet, our National legislation is disgraced by laws founded, as it is said, in sneers, "on the pig." That is, "on the pig," in lard and pastry, is honorable. "On the pig," when it comes in contact with the farmer's butter, is filth, horror, and to please the farmer, laws of inequality must be enacted. I do not say that laws to regulate the manufacture of oleomargarine are not wise; but a terror,

manufactured to please the butter interest, has no foundation in either legal or scientific right.

So when the Honorable Hudson Bay company taught the world, as far as it could, that all the country of their canoe-road-reached region was Russian *tundra*, and forever beyond cultivation, and by nature given up to only one product, that of fur producing, whereof the honorable gentlemen of the company were the competent and exclusive possessors, these honorable gentlemen lied, and they knew it; and for gain persisted in it to the end. When they, as history teachers, ever taught that Americans of the United States were the most dishonorable of traders, and the company only honorable, they also lied, and did it, too, systematically for years and years, even to Indians living on United States territory, so that murders resulted by the hundreds; and tribes of United States soil are yet unsafe because of these teachings of Englishmen of the company. I do not compare their diplomatic policy of Indian trade with the majority of United States traders, for history shows a contemptible littleness and dishonesty of our traders as compared with that of these gentlemen. But the rotten spot is, that the Hudson bay gentlemen were not careful of honesty as a principle, but because their policy for years was the best for gain. Gold was the English law, not right and integrity. Integrity enforced by gold is dishonorable, even if its mask of integrity is perfect.

And when, in 1835, my father approached Oregon, there was such a grasp of this honorable company that the American Fur company dared not pass

beyond the Rocky mountains. They climbed the summits, and at the interlocking of the Sweet Water river with the Colorado river, established their summer trading camp, because, though by United States and English treaty they had a right to go at their pleasure to and through Oregon, it was death to disobey the unwritten law of these honorable gentlemen.

To this they added the lie that Oregon was a wet, cold, inhospitable, uninhabitable, worthless land, fit only for furs; its salmon fishery valueless, and no one had any rights but themselves; while by the then almost unknown channels of the canoe paths, they gloried in the deception they had wrought in violation of all the rights of others.

Yes! they let Captain Wyeth, as Bancroft of the Pacific coast says, trade beyond the death line, did they? Surely the man's not a murderer who lets his victim live while slowly poisoning him! True history shows that Captain Wyeth was permitted in southeast Oregon to trade, to the extent of an appearance of treaty observance, and then was got rid of. My father saw him, but was seeing a man there temporarily by the allowance of the company the full equal rights of the United States treaty. So of a score of others, who began trade before 1835, and were aided directly or indirectly by this honorable company to fail to establish themselves in our own territory. But my discussion and presentation of historic facts are not so much to show how even good, excellent merchants in corporations may, knowingly or unconsciously, commit great injustice, and crimes that are blasting on the interests of civilization and of humanity

and Christianity, as it is to indicate the element that used the canoe road as its implement of travel and success. If I have just reasons to say that the final opinion of mankind will be, that with the name of honorable no corporations ever existed so baneful to the interests of the world as the "Honorable Hudson Bay Company" and the "Honorable East India Company," it is because I cannot be indifferent either to the demoralization that attended the Hudson Bay company in the same manner as the English parliament saw was the influence of the Honorable East India company. And the evils of both companies are still the stumbling-blocks of the world, with this difference: those of the Hudson Bay company are nearly at an end; those of the East India company yet afflict for evil India and China.*

The canoe of these paths was fully described by Alexander McKenzie to be a boat made by lapped sheets of birch bark, fastened to a tough wood skeleton of ribs, and some three to five feet wide,

* Had the policy of this company prevailed to this day there would have been no California, no settlements beyond the Rocky mountains, no Pacific railways, no boundless enterprise for the United States, no wheat-growing northwest. We should have been struggling states; poor, without influence and education. All of British America, all of "the Oregon," all of California and much of the magnificent northwest would to-day have been regarded as uninhabitable wild lands, never to be cultivated. And let me say that in 1835-6-7 missionaries, of which my father was one, broke the "honorable" company's spell and began the vast onward of the whole of this territory they then ruled with a rod of iron. It was the sin of these Hudson Bay and India *honorable* companies that they knew only *trade*, and did nothing for humanity, education, civilization or religion, and this with a greed that is indescribable.

and some thirty feet long. The bark is slowly porous, hence every few days it was daubed over with the mingled turpentine and resin, as it naturally came out of various trees. The capacity of these canoes was an average of fifteen or more tons, managed by four or six men. The portages, so very frequent, required the goods of all descriptions to be made in packages of about one hundred pounds' weight. The passenger express canoes were lesser in size. The goods for the fur trade were made up in England, and in six months or a year were at Montreal. The next opening spring they were placed in the line of canoes, and dispatched up the Ottawa river, through Lakes Nipissing, Georgian, and by the chain of little lakes to Lake Superior; and, skirting the north shore of that lake, reached the Alexandria house or fort at Thunder bay. Then, perhaps, usually, the goods lay over winter, and the next season, after the ice was out of the lines of lakes, rivers and brook channels, were conveyed to the Athabasca, central region of the continent, whence they were that or the next year distributed to the whole of the vast territory between Hudson bay, the Rocky mountains and the Polar sea, north of the United States. So that often it was the third year after the goods left England that the Indians exchanged furs for them, the Yukon "houses" or fortified buildings or forts generally not receiving them until the fourth year. To do this well, by an even consistent plan, required the skill of the best mercantile gentlemen of England; and, the exceptions named on a previous page discarded, they did well this vast and long-planned scheme of trade.

But this article is too long. I have intimated that my father, as one of the pioneers of Oregon, led me to the study of canoe paths, the details of which are very interesting to me, but require a volume beyond the pages these occupy. Yet I hope I have demonstrated the

historic fact and influence of the canoe roads over a territory much larger than all the United States, and hinted at its influence on even our own western and northwestern history.

SAMUEL J. PARKER, M. D.

EDITORIAL NOTES.

THE history of the Prohibition National party, commenced in this issue, is specially commended, from the fact that it has been prepared by George L. Case of Cleveland, one of the leaders of that party, who has been gathering for years the material of which he is now making use. It is a plain and interesting statement of a movement that must be regarded as important, even though one has no sympathy with the political principles of which it is the exponent.

At the regular quarterly meeting of the Chicago Historical society, held on Tuesday, October 8, it was reported by Secretary John Moses, that the accessions to the library during the last quarter were 199 volumes and 152 pamphlets, of which but two were purchased. Among the 197 volumes donated are included 104 of public documents, of which 25 relate to the United States, including a costly geological and mineralogical atlas of Leadville; 60, consisting of laws and reports, to Vermont; and 20 to Kansas. For three of the most valuable works presented, the society is indebted to the Smithsonian institute, namely, 'Archives of the National Museum of Rio de Janeiro,' 'Proceedings and Transactions of the Royal Society of Canada' and 'Geological and Natural History Survey of Canada.' The society is also indebted to Mrs. Dr. Levi D. Boone for the gift of a set of bank-notes issued by the Bank of Edwardsville in 1819-20, of which bank her father, Judge Theophilus W. Smith, whose portrait hangs on our walls, was once the cashier. They are handsomely framed, and are supposed to be the only complete collection of the issue extant.

At the recent monthly meeting of the Oneida Historical society of Utica, New York, a step forward was taken by the offering of the following resolution:

"WHEREAS, The library of the society is growing most rapidly in bound volumes, magazines, pamphlets, manuscripts, newspapers—all of great historical value; and,

"WHEREAS, The shelving room, so kindly placed at the society's disposal by the courtesy of the commissioners of education of this city, is now more than occupied, and much printed matter can not be made accessible; and,

"WHEREAS, Many of the donations given are maps, portraits, curios, relics, etc., which can neither be displayed nor properly cared for; therefore be it

"Resolved, That a committee of five be appointed by the chair to consider the expediency of securing some permanent building adapted to the present need of the society, and provide for its future possessions."

After some discussion, President Roberts stated that the society has a sum—not a large one—on deposit already, pledged to the erection of a building. Outside of the county, he said, the society is credited with doing good work, and the idea has been growing that it needs greater facilities. The real question is whether the community appreciates the work of the society sufficiently to aid it in securing a permanent home. The work of the society speaks for itself. The monuments erected under its auspices are the outward signs of good work done in preserving the history of Oneida county and the Mohawk valley for the state and the Nation. If the people do not already appreciate the work done by the society, it is only necessary to wait, for it is certain that sooner or later it will impress the community so that a suitable home will be provided for it. Mr. Roberts decidedly favored the adoption of the resolution. The resolution was adopted unanimously. President Roberts appointed the following gentlemen on the committee: William M. White, C. W.

Darling, Honorable C. W. Hutchinson, R. S. Williams and J. M. Childs. In answer to an inquiry the president stated that invitations had been given to a number of gentlemen to prepare papers on the early settlers of the different nationalities in the Mohawk valley. J. C. Schreiber has promised a paper on German settlers, and at the next meeting of the society Rev. Erasmus W. Jones will read a paper on "The Early Welsh Settlers of the Mohawk Valley." The annual address on the second Tuesday in January will be given by Dr. Willis J. Beecher of Auburn Theological seminary.

THE collection of tariff literature on the shelves of the Wisconsin State Historical society's library is by all means the largest in the west. It embraces both foreign and American publications, on both sides of the great question; and no important book or pamphlet on the subject, issued during this year or the last ten, is missing. Secretary Thwaites has also been particularly successful in gathering the general literature of the present campaign—Republican, Democratic and Prohibition; this he will have neatly bound up in volumes, indexed and catalogued, for future reference. It has been a campaign prolific in literary efforts, and in future years this great mass of books, pamphlets and leaflets will be studied with profit by historians and politicians. The secretary has done well to make his invaluable collection before election, for these ephemeral political publications, that will be so full of suggestions and striking lessons for future students of our economic history, will be scarce enough in another fortnight, and rarities at the close of the year; it is astonishing how quickly such editions are lost sight of after the date of issue. This collection is one of the many evidences that the State Historical library is being kept well abreast of the times.

GENERAL C. W. DARLING, corresponding secretary of the Oneida Historical society at Utica, New York, has been making an effort to ascertain why certain states in the Union

have no mottoes. The answers to his communications as they come in from various sources are as follows:

The governor of the state of New Hampshire says he does not know and has no means of finding out the reason why.

The secretary of the state of North Carolina says that it is the habit of that state to illustrate her ideas by actions rather than by words, and that the use of such mottoes does not accord with her ideas of the purest heraldic taste.

The governor of Indiana, through his private secretary, says that the reason is unknown to him.

The governor of Texas writes that to answer this question would require a knowledge of the motives, views and intentions of every congress that met in the Republic, and of every legislature since it has been a state. He adds: "If I should guess at it I would say that Texas has not been poetically inclined, and that while she has never adopted by law any motto, she has had one since the fall of the Alamo, to-wit: 'Be sure you are right, then go ahead.'"

The governor of Alabama intimates that he does not know why his state has not adopted a motto if "Here we rest" is not such.

Tennessee, through the corresponding secretary of the Tennessee Historical society, writes that in the Great Seal of the state are the words "Commerce and Agriculture," and those words may be supposed to take the place of a state motto.

A. A. Graham, corresponding secretary of the Ohio State Archæological society, reports thus for Ohio: "In 1803 the general assembly passed an act relative to a state seal, and therein was described the device to be used upon it; also placing thereon the motto, '*Imperium in Imperio*.'" In 1868 the general assembly passed an act restoring the seal of 1803, and omitting the motto. The proceedings of the house do not show why these changes were made; they merely show the motions, amendments, votes, etc., but as no debates were published, no reasons appear.

CORRESPONDENCE.

To the Editor of the MAGAZINE OF WESTERN HISTORY:

THE CELEBRATED INDIAN WALK IN PENNSYLVANIA.

IN the September number of the *MAGAZINE OF WESTERN HISTORY* I notice an article under the above heading signed "R. E.," which appears to have been based on 'An Inquiry Into the Causes of the Alienation of the Delawares and the Shawanese from the British Interest, and Into the Measures Taken for Recovering Their Friendship,' London, 1759, 184 pp., 12mo., with a map. It is now regarded as a rare work, of which Charles Thomson is the author, who died near Philadelphia in 1824, at the advanced age of ninety years. In the beginning of the aforesaid communication the writer states, "I know of no current work in which all the details can be found grouped together." In consequence I take the liberty to mention that a 'History of the Indian Walk as Performed by Order of the Proprietaries of Pennsylvania in 1737, to which is appended a Life of Edward Marshall, by William J. Buck,' was published in Philadelphia in the fall of 1886, making a neat 12mo. of 269

pages. An edition of only 210 copies was issued at the expense of the author. On inquiry I ascertain that a few copies may yet be obtained at Leary's bookstore corner of Ninth and Market streets, said city, sent post-paid on receipt of \$2.00. It can be secured nowhere else.

Mr. Buck is the author of numerous other works and one of the most active workers of the Historical Society of Pennsylvania, who had the arranging of the extensive Penn Papers, purchased in London, in 1871, at a cost of nearly \$4,000. From this latter source and the descendants of Edward Marshall, the hero of the walk, he chiefly secured his information, having commenced thereon as long ago as 1852. This work shows from conclusive evidence that the walk was a greater outrage upon the Indians than had heretofore been supposed, which is all satisfactorily explained and substantiated by documents of said period, that had heretofore, in this country, not been accessible. It also contains biographical sketches of all the principal characters that figured therein. Thomas Penn and William Allen were the chief promoters of this nefarious transaction and whom it most benefited.

AMONG THE BOOKS.

'INCIDENTS OF THE CIVIL WAR DURING THE FOUR YEARS OF ITS PROGRESS.' By Mary A. Hedrick of Lowell, Massachusetts.

This book is destined to become a rare and valuable possession. It was compiled by Mrs. Mary A. Hedrick of Lowell, who, during the Rebellion, clipped copious extracts from the journals of the day, concerning the progress of events. While it covers matters of interest in all parts of the country, it is naturally more especially rich in allusions to Lowell troops, General Butler, etc. The frontispiece is a large, full-page reproduction of a photograph, taken from life, of the Richardson Light In-

fantry of Lowell, afterwards the Massachusetts Seventh battery. It has been well called a curious compilation, possessing more both of interest and of value than could have been supposed when it was being made. The volume is made up of selections from the scrap-book into which the compiler pasted newspaper reports and clippings during the years of the war. They are reproduced now with little attempt at arrangement, except by order of time, in the same manner, and even with the same head-lines that were first used. They comprise reports of battles, editorials, letters of correspondents, bits of war songs, and other inci-

dents and episodes of the great contest. Turning over these pages now has a curious effect upon the mind, for it seems to carry us back to the very days when these momentous events were taking place. There are several illustrations, and some interesting fac-similes of the envelopes used in war time, etc. Altogether, this is an unique addition to the literature of the war. Another writer says: "It is one of the most interesting memorials of the war that could be had, and would give one a better idea of affairs as they transpired from day to day, and of the state of feeling at the front while the war was going on, than could be obtained in any other way. It is a very valuable contribution to the history of the great crisis of our National existence." Those who desire this unique work should address George Hedrick, 36 Central street, Lowell, Massachusetts.

'THE DEMOCRATIC PARTY: ITS POLITICAL HISTORY AND INFLUENCE.' By Professor J. H. Patton, author of 'A Concise History of the American People,' 'How We are Governed,' 'Natural Resources of the United States,' etc. Published by Fords, Howard & Hulbert, New York. Received of the Burrows Brothers Co., Cleveland.

Professor Patton's carefully prepared and admirably arranged history of the Democratic party has been revised and brought down to the year 1888, making it the most recent, as it is the ablest and fairest, history of one of our great National organizations that now exists. While the oldest of these party organizations, the Democratic, is the basis of the work, its chief rivals, the Federal, the Whig and the Republican, are carefully and fairly examined, and the purpose and work of each plainly stated. The work, therefore, becomes a concise history of American politics, as all the important political events and measures are here arranged under their headings; and the thoughtful reader cannot help finding himself well informed on the political, moral, financial and industrial questions of the day. The author has aimed to be fair in his treatment of a difficult theme, pointing out the good the Democratic party has done, and giving it credit

therefor; and pointing out its errors, for which he has held the party to the strictest accountability. For the Democrat who would know why he is such, and the Republican why he is not; for the political and historical student; and for the general reader who would seek light upon an important theme, the book is of unquestioned value, and should be carefully perused.

'HOMESTEAD HIGHWAYS.' By Herbert Milton Sylvester, author of 'Prose Pastorals.' Published by Ticknor & Company, Boston.

The readers of 'Prose Pastorals' will need no inducement to the perusal of this volume, as they bear in mind the healthful thoughts, the charming methods of discussion and the picturesque descriptions that come with such easy grace from Mr. Sylvester's pen. The field in which he works in this instance is one especially his own; and the author touches a pleasant chord of memory when he says: "Nature is the mother of sentiment, and to multitudes of people nothing is more charming in its reminiscent quality than the old New England country life. Away from its quiet homesteads and tree-shadowed highways, into the noisy, crowded ruts of the city, the awakened memories of its old-fashioned and simple habits, its plain fare, its open-handed hospitality, are like beautiful pictures swept clear of years of dust and cobwebs. A boyhood or a girlhood laid among such pastoral scenes is the halcyon period of a life-time. Of such, among the fields, the woods, the meadows and streams, my book is in part a suggestion."

The themes treated are suggestive read only by title: "A Mute Prophecy," "An Old-Fashioned Festival," "A Winter Resort," "Running Water," "A Snug Corner," "A Wayside Watering Place," "A Drop of Rain." The touches of home-life and nature, of love and memory, and of that subtle knowledge that shows a long and loving study of the theme, are found upon every page of 'Homestead Highways,' and carry the most careless and the most absorbed in the work of the present back into the quiet of childhood and country days.

'MARTIN VAN BUREN.' By Edward M. Shepard. In American Statesman series. Edited by John T. Morse, jr. Published by Houghton, Mifflin & Co., Boston. Received of the Burrows Brothers Co., Cleveland.

'GOUVERNEUR MORRIS.' By Theodore Roosevelt. In same series as above. Published by Houghton, Mifflin & Co., Boston. Received from Burrows Brothers Co., Cleveland.

We have had occasion heretofore to speak of the great care and admirable judgment displayed in the selection of subjects and writers for this series of American statesmen that the enterprise of this great publishing house is giving to the world, and in the volumes above cited are furnished fresh proofs that the series is to be held up to the high level of literary and historical worth upon which it was commenced. Mr. Shepard needs no introduction to the reading public, nor does Mr. Roosevelt. The subjects of which they write were representative men of their times, Van Buren reaching the highest place within the gift of the people, while Morris stood in the front rank of that group of remarkable men produced in the heat and fervor of Revolutionary times. The treatment followed in this series has been varied somewhat from the dull routine of too much historical work, and the result is a gain in interest, while there is no loss in the direction of solid and necessary information.

'TAKEN BY THE ENEMY.' By Oliver Optic, author of 'The Army and Navy Series,' 'Young America Abroad,' 'The Boat Club Series,' etc. Published by Lee & Shepard, Boston. Received of the Burrows Brothers Co., Cleveland.

'A START IN LIFE: A STORY OF THE GENESEE COUNTRY.' By J. T. Trowbridge. Published by Lee & Shepard, Boston. Received of the Burrows Brothers Co., Cleveland.

'LITTLE MISS WEEZY'S BROTHER.' By Penn Shirley, author of 'Little Miss Weezy,' etc. Published by Lee & Shepard. Received of the Burrows Brothers Co., Cleveland.

The three volumes above mentioned are so many more added to the long list of healthful juvenile works that Lee & Shepard have furnished the young people of America—works that are free from harm, instructive and moral,

while full of life and action. Optic and Trowbridge are known, and as a general thing are safe to place in the hands of the young. We can cheerfully commend the above, especially to those who are looking about with a view to holiday purchases.

'THE LIFE OF ST. PAUL.' By Rev. James Starker, M. A. Published by the American Tract Society, New York.

Viewed either as a man engaged in fierce pursuit of one whom he regarded as an impostor and an enemy to the Jewish religion, or as a brave and devoted follower of the man whom he had persecuted, Saul of Tarsus is a figure of grand historic proportions, and when rationally treated, his life is one of deep human as well as spiritual interest. Mr. Starker has produced the most interesting, perhaps because brief, life of Paul that we have seen since Conybeare and Howson's work was given to the public some years ago. The plan he has followed in the work is outlined in his chapter headings: Paul's place in history; his unconscious preparation for his work; his conversion; his gospel; the work awaiting the worker; his missionary travels; his writings and his character; picture of a Pauline church; his great controversy; the end. The work concludes with a valuable series of hints to teachers and questions for Bible students.

'MANUAL OF THE CONSTITUTION OF THE UNITED STATES.' By Israel Ward Andrews, D. D., LL. D. Published by Van Antwerp, Bragg & Co., Cincinnati and New York.

While this work grew out of the necessities of the school-room, it is one that covers the field so thoroughly and ably that the general historical student will find it an authority upon all the points of its great theme, and is exhaustive and complete. It is an historical and philosophical analysis of the Constitution, taking it up section by section and giving a history of the government from the earliest day to the present, and in addition thereto furnishes many important facts of historical interest that elucidate and illustrate the theme. Dr. Andrews was a student, historian and teacher,

and the preparation of a work of this character could have been committed to no more competent hands.

'HONORABLE UNCLE SAM,' By Viscount Valrose. Published by John Delay, 816 Broadway, New York.

From the sharp thrusts and keen-edged statements found in this exhilarating work, there are many who suppose that "Viscount Valrose" is a hidden member of the nation whose leaders and leading characteristics are so well hit off. Be that as it may, the sharp, pungent, paragraphic descriptions of our authors, editors, statesmen and politicians, form one of the most taking works of the day; by no means a satire, nor so intended, but a sarcastic statement of some, at times unpleasant, truths.

'A HISTORY OF OHIO: WITH BIOGRAPHICAL SKETCHES OF HER GOVERNORS AND THE ORDINANCE OF 1787.' By Daniel J. Ryan. Published by A. H. Smythe, Columbus, Ohio.

Mr. Ryan has chosen a timely season for the presentation to the public of the work upon which he has been so long and carefully engaged, for in this year of Ohio's centennial all that pertains to its past is of unusual value and interest. The story of the foundation and growth of our state is very clearly and fully told, and a vast amount of information has been collected into a little space. The line of relation is somewhat new, in that all the lines of state development are taken up, and many facts related that are not usually found in a work of this character. Mr. Ryan is a clear and terse writer, and is sure to hold the attention of even the careless reader.

'FIGHTING PHIL: THE LIFE AND MILITARY CAREER OF PHILIP HENRY SHERIDAN, GENERAL OF THE ARMY OF THE UNITED STATES.' By Rev. P. C. Headley, author of *Lives of Grant, Sherman, Mitchel, Lafayette*, etc., etc. Published by Lee & Shepard, Boston. Received of the Burrows Brothers Co., Cleveland.

Mr. Headley is an author of established reputation, and has made a special biographical study of the heroes of the Rebellion, the lives

of many of whom he has placed upon record. In the character of the famous cavalry leader who has so recently passed away, he has found a congenial theme, and has produced a work of exceptional interest for the youth, for whom it was the more especially intended. Graphic and full of life, he yet holds his narration to strict historical truth, and has painted the great general in such colors as his career deserved. The work is accompanied by a number of engravings and illustrative maps.

'DAYS SERENE,' illustrated from the original designs of Margaret MacDonald Pullman. Published by Lee & Shepard, Boston.

'A CHRISTMAS CAROL.' By Dinah Maria Mulock. Published by Lee & Shepard, Boston.

'A FRIEND STANDS AT THE DOOR.' 'A PSALM FOR NEW YEAR'S EVE.' By Dinah Maria Mulock. Published by Lee & Shepard, Boston.

'ALL AROUND THE YEAR.' By J. Pauline Sunter. Published by Lee & Shepard. Received from the Burrows Brothers Co., Cleveland.

In 'Days Serene,' and, in fact, in the smaller of the works mentioned in connection with it, the artist and the poet have met to complete each other. In that first mentioned, illustrations are by Margaret MacDonald Pullman, and have been engraved by George T. Andrew, and printed under his direction—sufficient guarantee of their excellence. The book is a royal oblong quarto, with emblematic cover, and contains twenty-six full-page original illustrations. The pleasure of an examination of the work, which the title happily anticipates, is continually enhanced, until the last page has given the eye and the mind actual delight. Beautiful landscape scenery—the grand and picturesque in nature—has been photographed, as it were, upon these charming pages by this student of nature and new competitor for artistic honors. Down by the sea, as its billows pound the rocks and the shore; on the side of the mountain, with its appealing grandeur; in the midst of forests; in the blooming meadow, and beside playful streams, has this lover of nature wandered that she

might transcribe the enchanting pictures for the pleasure of the multitude. There is evidence in this artist's work that her conceptions of nature are mellowed by a gentle sympathy with her beautiful subjects. The poetic selections—the choice thought of some of our favorite poets—which are associated with this artistic production, still further and forcefully appeal to “the better angels of our nature.” The book's magnificent proportions, rich binding, creamy paper and handsome letter-press make it deservedly a choice art volume. No more attractive specimens of holiday book-making can be named than the gems contained in the above list.

‘AROUND THE WORLD ON A BICYCLE: FROM TEHERAN TO YOKOHAMA.’ Vol. II. By Thomas Stevens. Published by Charles Scribner's Sons, New York. Received of the Burrows Brothers Company, Cleveland.

The thousands who followed this dauntless rider of a steed of steel across the American continent, through Europe and into Asia, and left him enjoying the semi-barbaric hospitality of Persia, have awaited this continuation of his great trip with the most vivid interest; and volume second well repays the waiting, and fulfills the most eager expectation. This half of his journey lies through the wild and unknown lands of eastern Asia, and much of the story told is as new to the great body of readers as was the country to Mr. Stevens himself. It is a story of danger and at times of suffering, modestly told, and carrying with it in every line the simple stamp of truth. The keen eye of the traveler was as active as his swift revolving wheel, and thousands of little touches of life and nature are caught up in such manner as to give the reader a most vivid idea of the lands described. With that purpose of making their works perfect in all respects that is a characteristic of the Scribners, the illustrations are almost without number, and cover almost every feature upon which Mr. Stevens touches. The information with which every page of these two volumes abounds is a marked feature of the work, making it invaluable aside from

all that exciting interest which attaches to his experiences by the way.

‘THE RUSSIAN PEASANTRY: THEIR AGRARIAN CONDITION, SOCIAL LIFE AND RELIGION.’ By Stepniak, author of ‘Russia Under the Tsars,’ ‘The Russian Storm-Cloud,’ etc. Published by Harper & Brothers, New York. Received of the Burrows Brothers Company, Cleveland.

The talented patriot whose name accompanies the above work, and who has been driven into exile because he would speak the truth and utter his convictions, has had much to say of his country, and so says it that it carries conviction of his earnestness and truth, and lays Russia bare before us in all its want and misery and suffering. In this latest book he has discussed and made plain many things of which we have had little knowledge before—the land question, the moujiks and the Russian democracy, paternal government, hard times, popular religion, rationalistic dissent, modern sectarianism, etc. He has, to use his own words, “tried to show as briefly and as fully as possible the main features and the bearings of this double process of growth and decay now to be observed within our rural classes.” “For the present generation the study of popular life has acquired an exceptional interest and importance, as the manifold influences of the new times have wrought a general downfall of the very basis of rural life. Russian peasants are passing through an actual crisis—economical, social and religious—and the future of our country depends upon its solution.”

Stepniak does not merely argue and moralize in these pages; he makes them glow with a graphic and at times terrible statement of actual facts that speak with more convincing power than all the logic he might employ. He shows us Russia as it is, and the picture is full of deep shadows, of wrongs that seem to grow greater and can never be avenged, of a misery that cries out to heaven for mercy. He brings his country before the bar of the world for judgment, and his case is strong not only with the outrages of the past but the increased burdens and indignities of the present.

'NEGRO MYTHS FROM THE GEORGIA COAST: TOLD IN THE VERNACULAR.' By Charles C. Jones, jr., LL. D. Published by Houghton, Mifflin & Company, Boston. Received from the Burrows Brothers Company, Cleveland.

This little work is in a line of American folklore but recently opened. The delightful "Uncle Remus" stories, by Mr. Joel Chandler Harris, are but a small part of those quaint stories handed down by tradition from generation to generation among the Negroes of the southern states. Colonel Jones, who has gained no little reputation by his 'History of Georgia,' has gathered a volume of these, and, in explanation of its special claim to attention, says: "There is a field largely untrodden in which may be found ample opportunity for the exhibition of kindred inquiry and humor. We refer to the swamp regions of Georgia and the Carolinas, where the lingo of the rice-field and the sea-island Negroes is *sui generis*, and where myths and fanciful stories, often repeated before the war, and now seldom heard save during the gayer moods of the old plantation darkies, materially differ from those narrated by the sable dwellers in the interior." Some idea of dialect and scope of the myths can be gained from these suggestive titles:

"How come Buh (Brother) Alligatur nebbber sleep fur from de ribber bank," "Buh Wolf, Buh Rabbit, and de Tar-Baby," "Buh Tukrey Buzzan an de King-Crab," "De ole Man an de Gallinipper," "Buh Wolf and de two Diner," "Buh Monkey and de Bulldog," "Buh Elephant and Buh Rooster," "De Po Man an de Snake," "Leely Gal, Buh Alligatur, an de Jay-Bud," "Buh Wolf, Buh Rabbit, and de Butter," "De ole Man an Det."

'THE BRITISH INVASION FROM THE NORTH. THE CAMPAIGNS OF GENERALS CARLETON AND BURGOYNE FROM CANADA, 1776-1777, WITH THE JOURNAL OF LIEUTENANT WILLIAM DIGBY OF THE 53RD, OR SHROPSHIRE, REGIMENT OF FOOT. ILLUSTRATED WITH HISTORICAL NOTES.' By James Phinney Baxter, A. M. Published by Joel Munsell's Sons, Albany, New York.

The history-loving portion of America owes

Mr. Baxter a debt of gratitude, not merely for having discovered the journal of Lieutenant Digby in the British Museum but also for making it possible that it should see the light of print; and also to the Munsells for having made so fine and valuable a volume of the material prepared. Mr. Baxter, in the opening portions of the volume, gives us a clear and interesting account of the campaigns of Carleton and Burgoyne, with which are accompanying notes of great value. Of the causes by which he came to prosecute the work, Mr. Baxter says: "While engaged during the fall and winter of 1885-6 in examining manuscripts in English archives relative to America, a journal in the British Museum, written by William Digby, an officer in the Army of Invasion, and containing interesting particulars relative to the two campaigns of 1776 and 1777, attracted my attention, and I obtained permission from the museum authorities to have it copied. Having familiarized myself with the journal, I became so interested in it that I laid aside other work in which I was engaged and began collecting material for annotating it. The work led to a study of the subject of which the journal treats but partially, and, to complete my task properly, a succinct account of the two campaigns and of questions growing out of them connected with the hero of the final and more important one—General Burgoyne—seemed necessary as introductory to Digby's work; hence my account of the campaigns of Carleton and Burgoyne."

The journal covers nearly three hundred pages of the large volume of which it is the main part, and sheds a flood of light upon the campaigns of the year named. It is an addition to Revolutionary history as valuable as it is unexpected, and with the copious notes of Mr. Baxter makes a welcome side light of American history. A number of portraits and other illustrations are also presented. Only a limited edition has been printed, for subscribers mostly, the price of the book being placed at five dollars. We hope that the call for it will be so great that the Munsells will be compelled to issue an edition for the trade.

1700



Magazine of Western History

James Lusk
Austin

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1881